

Vitek MS™

RUO

SARAMIS® Knowledge Base
V4.15

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For Research Use Only
Not for Use in Diagnostic Procedures



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Table of Contents

Preparation Protocols	1-1
Preparation of Bacteria	1-1
Preparation of Yeasts	1-4
Preparation of Mycobacterium and Nocardia from a Solid Medium	1-6
Preparation of Mycobacterium from a Liquid Medium	1-9
Preparation of Moulds	1-13
Preparation of Mycoplasma	1-15
Preparation of Brucella	1-17
Preparation of Streptomyces	1-20
Species Included in the SARAMIS® Database	2-1
List of Reference Spectra - Algae, Mycota and Yeasts	2-2
List of Reference Spectra - Bacteria Species	2-8
List of SuperSpectra - Algae, Mycota and Yeasts	2-26
List of SuperSpectra - Bacteria Species	2-31

1

Preparation Protocols

IMPORTANT: The following protocols are for research use only (RUO) and not for use in diagnostic procedures with clinical specimens.

Note: For general sample set up information, please refer to the VITEK® MS Plus Workflow User Manual, ref. 161150-216.

Preparation of Bacteria

WARNING



Powder-free gloves should be used when handling VITEK® MS-DS target slides.

IMPORTANT: Do not use loops that may have come into contact with anything other than the sample strain to be tested.

Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Some microorganisms, such as streptococci, grow in very small colonies. In such cases, pick up several similar colonies and deposit them on the same spot.

Do not deposit more than 1 (Single Deposit Mode) or 2 (Duplicate Deposit Mode) samples at a time before adding the VITEK® MS-CHCA matrix to the target slide spots.

Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix. Change the pipette tip after each individual deposit to avoid contamination of the matrix.

Note: The VITEK® MS-CHCA matrix contains a high concentration of organic solvents. It is recommended to close the tube after dispensing, to avoid evaporation.

1. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the sample.

IMPORTANT: If you spill any *E. coli* ATCC® 8739™ strain or VITEK® MS-CHCA matrix on a VITEK® MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and sample.

2. Collect a portion of an isolated colony using a 1 µL loop.
3. Apply the sample to the center of the spot.

Take special care not to apply too much. The appropriate amount on a spot is shown in the pictures below.

If not enough colony is deposited, take a new loop and add another portion of the colony.



Too much



Not enough



OK

4. Smear a thin layer of the sample on the spot using the 1 µL loop and discard the used loop.
5. Add 1 µL of VITEK® MS-CHCA matrix to the center of the spot using a pipette and discard the pipette tip.
6. Allow the spot to dry completely.
7. Repeat the procedure using fresh loops and pipette tips to deposit other samples (if any).
8. After about 5 minutes, check for crystal formation on the spots.

Inexperienced users may find using a magnifying glass helpful.

Measurement will succeed only if matrix crystals have become visible as a yellowish film. Ideally, most of the spot's surface will be coated with crystals.



9. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual, ref. 161150-216.

Note: It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.

IMPORTANT: Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

IMPORTANT: If a result of Mycobacterium is obtained by direct deposit, it must be confirmed by retesting the strain using the extraction kit and protocol (refer to [Preparation of Mycobacterium and Nocardia from a Solid Medium](#) (page 1-6)).

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.

Preparation of Yeasts

WARNING



Powder-free gloves should be used when handling VITEK[®] MS-DS target slides.

IMPORTANT: Do not use loops that may have come into contact with anything other than the sample strain to be tested.

Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Do not deposit more than 1 (Single Deposit Mode) or 2 (Duplicate Deposit Mode) samples at a time before adding the VITEK[®] MS-CHCA matrix to the target slide spots.

Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK[®] MS-CHCA matrix and the VITEK[®] MS-FA. Change the pipette tip after each individual deposit to avoid contamination of the matrix.

Note: The VITEK[®] MS-CHCA matrix contains a high concentration of organic solvents. It is recommended to close the tube after dispensing, to avoid evaporation.

The preparation of yeasts differs from the standard procedure in that VITEK[®] MS-FA is applied to the sample prior to adding the VITEK[®] MS-CHCA matrix.



Figure 1-1: Yeast immediately after VITEK[®] MS-FA treatment

1. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the sample.

IMPORTANT: If you spill any *E. coli* ATCC® 8739™ strain or VITEK® MS-CHCA matrix on a VITEK® MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and sample.

2. Collect and apply the sample to the appropriate VITEK® MS-DS target slide position as described in the section about [Preparation of Bacteria on page 1-1](#).
3. Smear a thin layer of the sample on the spot using the 1 µL loop and discard the used loop.
4. Add 0.5 µL of VITEK® MS-FA to the spot using a pipette and discard the pipette tip.



CAUTION: Do not treat the *E. coli* calibration strains on positions xA1, xB1, xC1 with VITEK® MS-FA.

5. Repeat the procedure using fresh loops and pipette tips to deposit other samples (if any).
6. For efficient extraction, it is important to allow for evaporation of the VITEK® MS-FA before adding the matrix.
Depending on the air humidity and other factors, this usually takes between 1 and 3 minutes.
7. Add 1 µL of VITEK® MS-CHCA matrix as described in the section about [Preparation of Bacteria on page 1-1](#).
8. Allow the spot to dry completely.
9. Run the target slide in the VITEK® MS instrument according to the instructions included in the *VITEK® MS Plus Workflow User Manual*, ref. 161150-216.

Note: It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.

IMPORTANT: Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.

Preparation of *Mycobacterium* and *Nocardia* from a Solid Medium

WARNING



Powder-free gloves should be used when handling VITEK® MS-DS target slides.

WARNING



To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Mycobacterium*.

All manipulations of *Mycobacterium* must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of *M. tuberculosis* or *Mycobacterium* sp. grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.



CAUTION: It is recommended to use Environment Protection Agency (EPA) registered tuberculocidal disinfectant solution to clean the Biological Safety Cabinet and soak the plastic-backed absorbent cloth inside the BSC.

IMPORTANT: Do not use loops or cytology brushes that may have come into contact with anything other than the sample strain to be tested.

Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Make sure that only fresh, sterile loops or cytology brushes are used. Discard the loop or cytology brush after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix and the VITEK® MS Mycobacterium/Nocardia kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

Note: The VITEK® MS-CHCA matrix and the VITEK® MS Mycobacterium/Nocardia kit reagents contain a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

If *Nocardia* strains are not embedded in the agar, direct deposit is also possible (refer to [Preparation of Bacteria on page 1-1](#)).

1. For each organism to be tested, transfer 500 μ L of 70% ethanol to a 2 mL microcentrifuge tube containing approximately 200 μ L of 0.5 mm glass beads.
2. **For *Mycobacterium***, use a 1 μ L loop to pick up and transfer one loopful of the test organism to the tube and cap securely.

For *Nocardia*, use a 1 μ L loop (one loopful) or a curved cytology brush (in case of an embedded strain) to gently pick up and transfer material from the medium to the tube and cap securely.

3. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).

Note: *When working with BSL-3 Mycobacterium, it is recommended to place the bead beater-type homogenizer inside the Biological Safety Cabinet.*

If the mechanical disruption is performed outside the Biological Safety Cabinet, seal the tube top with parafilm or equivalent to avoid aerosolization or spills.

4. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation. Keep the tube upright.

Note: *The following steps can be performed outside the Biological Safety Level 3 Cabinet.*

5. Mix for 5 to 10 seconds using a vortex-type mixer and immediately transfer the suspension into an empty 2 mL round-bottomed tube using a pipette. Avoid transferring any glass beads. Discard the pipette tip.

Note: *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

6. Centrifuge the sample for 2 minutes at a speed between 10,000 and 14,000 g to create a pellet.
7. Discard all the supernatant using a pipette.

Note: *If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow ethanol to evaporate.*

8. Add 10 μ L of 70% formic acid to the pellet. Resuspend by aspiration/dispensing using a pipette until the pellet is uniformly dispersed, or directly with a vortex-type mixer.
9. Add 10 μ L of 100% acetonitrile and mix using a vortex-type mixer.
10. Centrifuge for 2 minutes at a speed between 10,000 and 14,000 g to create a pellet.

IMPORTANT: *If you are working inside the Biological Safety Cabinet, make sure you replace the previously used plastic-backed absorbent cloth with a fresh one soaked in tuberculocidal disinfectant.*

11. Spot the *E. coli* ATCC[®] 8739[™] control organism and the VITEK[®] MS-CHCA matrix on the calibration spot prior to spotting the protein extraction.

IMPORTANT: *If you spill any *E. coli* ATCC[®] 8739[™] strain or VITEK[®] MS-CHCA matrix on a VITEK[®] MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.*

12. For each organism to be tested, immediately transfer 1 μ L of the supernatant onto the designated target slide spots.
13. Allow each spot to dry completely.

Note: *If the spots are not completely dry before adding the VITEK[®] MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK[®] MS results (No Identification).*

14. Add 1 μ L of VITEK[®] MS-CHCA matrix to each target slide spot using a pipette and replacing the pipette tip after each addition of matrix.
15. Allow each spot to dry completely.
16. Run the target slide in the **VITEK[®] MS** instrument according to the instructions included in the *VITEK[®] MS Plus Workflow User Manual*, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK[®] MS-DS target slide.*

IMPORTANT: *Extract supernatants can be stored at -20°C for up to 14 days. Before spotting, extract supernatant must be thawed and then centrifuged at a speed between 10,000 and 14,000 g for 2 minutes.*

Once the VITEK[®] MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK[®] MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.



CAUTION: If you are working inside the BSL-3 laboratory and the **VITEK[®] MS** instrument is located outside the laboratory, apply tuberculocidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

Preparation of *Mycobacterium* from a Liquid Medium

WARNING



Powder-free gloves should be used when handling VITEK[®] MS-DS target slides.

WARNING



To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Mycobacterium*.

All manipulations of *Mycobacterium* must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of *M. tuberculosis* or *Mycobacterium* sp. grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.



CAUTION: It is recommended to use Environment Protection Agency (EPA) registered tuberculocidal disinfectant solution to clean the Biological Safety Cabinet and soak the plastic-backed absorbent cloth inside the BSC.

IMPORTANT: Make sure that only fresh, sterile pipette tips come into contact with the VITEK[®] MS-CHCA matrix and the VITEK[®] MS Mycobacterium/Nocardia kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

Note: The VITEK[®] MS-CHCA matrix and the VITEK[®] MS Mycobacterium/Nocardia kit reagents contain a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

1. Test positive BacT/ALERT[®] MP bottles, BACTEC[™] MGIT[™] 960 or VersaTREK[®] Myco bottles between 24-72 hours post-positivity as determined by the detection instrument.

Note: *If the bottles or tubes are removed from the instrument for other tests, continue to incubate them at +35°C/+37°C in an incubator until they have been incubated for 24-72 hours post-positivity.*

2. Between 24-72 hours post-positivity, mix the bottle or tube for 5 to 10 seconds using a vortex-type mixer and immediately aseptically transfer 3 mL of sample into the 5 mL microcentrifuge tube.
When testing BacT/ALERT[®] MP bottles, use an 18 G (or larger) needle for sample aspiration.

Note: *After the initial aliquot is removed, place the positive bottle or tube at +35°C/+37°C in an incubator for further testing, if needed.*

3. Use a swing bucket centrifuge with a 15 mL adaptor to centrifuge the 5 mL microcentrifuge tube for 10 minutes at a speed of 3,000 g to create a pellet.
4. Decant the medium into a waste container and completely blot dry onto a plastic-backed absorbent pad.

WARNING



The medium may contain viable mycobacteria and should be handled as biologically hazardous waste.

5. Add 500 µL of 70% ethanol to the 5 mL microcentrifuge tube and use a pipette to gently mix up and down to resuspend the pellet.
6. Transfer the suspension to a tube containing glass beads.
7. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).

Note: *When working with BSL-3 Mycobacterium, it is recommended to place the bead beater-type homogenizer inside the Biological Safety Cabinet.*

If the mechanical disruption is performed outside the Biological Safety Cabinet, seal the tube top with parafilm or equivalent to avoid aerosolization or spills.

8. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation. Keep the tube upright.

Note: *The following steps can be performed outside the Biological Safety Level 3 Cabinet.*

9. Mix the tube containing the glass beads for 5 to 10 seconds using a vortex-type mixer and immediately transfer the suspension into an empty 2 mL round-bottomed tube using a 200 µL pipette. Avoid transferring any glass beads. Discard the pipette tip.

Note: *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

10. Centrifuge the tube for 2 minutes at a speed of 14,000 g to create a pellet.
11. Aspirate and discard all the supernatant using a 200 μ L pipette and taking care to remove all visible liquid without disturbing the pellet.

Note: *If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow ethanol to evaporate.*

12. Add 10 μ L of 70% formic acid to the 2 mL round-bottomed tube and use a pipette to gently mix up and down to resuspend the pellet.

Note: *If the pellet is not visible, wash the sides of the tube with 70% formic acid to ensure resuspension.*

13. Mix for 5 to 10 seconds using a vortex-type mixer.
14. Add 10 μ L of 100% acetonitrile to the tube.
15. Mix for 5 to 10 seconds using a vortex-type mixer.
16. Centrifuge the tube for 2 minutes at a speed of 14,000 g.

IMPORTANT: *If you are working inside the Biological Safety Cabinet, make sure you replace the previously used plastic-backed absorbent cloth with a fresh one soaked in tuberculocidal disinfectant.*

17. Spot the *E. coli* ATCC[®] 8739[™] control organism and the VITEK[®] MS-CHCA matrix on the calibration spot prior to spotting the protein extraction.

IMPORTANT: *If you spill any *E. coli* ATCC[®] 8739[™] strain or VITEK[®] MS-CHCA matrix on a VITEK[®] MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.*

18. For each organism to be tested, immediately transfer 1 μ L of the extract supernatant onto the designated target slide spots.
19. Allow each spot to dry completely.

Note: *If the spots are not completely dry before adding the VITEK[®] MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK[®] MS results (No Identification).*

20. Add 1 μ L of VITEK[®] MS-CHCA matrix to each target slide spot using a pipette and replacing the pipette tip after each addition of matrix.
21. Allow each spot to dry completely.
22. Run the target slide in the VITEK[®] MS instrument according to the instructions included in the VITEK[®] MS Plus Workflow User Manual, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK[®] MS-DS target slide.*

IMPORTANT: *Extract supernatants can be stored at -20°C for up to 14 days. Before spotting, extract supernatant must be thawed and then centrifuged at 14,000 g for 2 minutes.*

IMPORTANT: Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.



CAUTION: If you are working inside the BSL-3 laboratory and the VITEK® MS instrument is located outside the laboratory, apply tuberculocidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

Preparation of Moulds

WARNING



Use a safety cabinet, wear a laboratory coat, powder-free gloves and oversleeves.



CAUTION: Use the appropriate procedure/product to clean the material.

IMPORTANT: Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK[®] MS-CHCA matrix and the VITEK[®] MS Mould kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

Note: The VITEK[®] MS-CHCA matrix and the VITEK[®] MS Mould kit reagents contain a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

1. Wet a sterile cotton swab using suspension medium or sterile deionized water.
2. Press the swab against the side of the tube to remove excess liquid.
3. Collect a 1 to 2 cm diameter circle (approx.) of mould from the agar plate using the swab, selecting spores (conidia) and hyphae if possible.
4. Suspend the collected material in a 2 mL round-bottomed tube containing 900 μ L of 70% ethanol.
5. Mix the round-bottomed tube using a vortex-type mixer.
6. Centrifuge the round-bottomed tube for at least 2 minutes at a speed between 10,000 and 14,000 g.

Note: If you need to remove the tubes from the safety cabinet for the centrifugation steps, make sure you clean them with sporicidal agent in order to avoid laboratory contamination.

7. Discard all the supernatant using a pipette. Use caution to avoid dislodging the pellet.
8. Add 40 μ L of 70% formic acid and mix using a vortex-type mixer until complete resuspension.
9. Add 40 μ L of acetonitrile and mix using a vortex-type mixer.

Note: Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.

10. Centrifuge for at least 2 minutes at a speed between 10,000 and 14,000 g.
After this step, the inactivation is complete.

Note: *The following steps can be performed outside the Biological Safety Cabinet.*

11. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the protein extraction.

IMPORTANT: *If you spill any *E. coli* ATCC® 8739™ strain or VITEK® MS-CHCA matrix on a VITEK® MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.*

12. Immediately spot 1 µL of the supernatant on a target slide.
13. Allow the spot to dry completely.
14. Add 1 µL of VITEK® MS-CHCA matrix to each target slide spot using the pipette and replacing the pipette tip after each addition of matrix.
15. Allow the spot to dry completely.
16. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

IMPORTANT: *Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.

Preparation of *Mycoplasma*

WARNING



Use a safety cabinet, wear a laboratory coat, powder-free gloves and oversleeves.

IMPORTANT: Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix and the 0.45% NaCl sterile aqueous solution. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

Note: The VITEK® MS-CHCA matrix contains a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

1. From positive liquid culture, transfer 1 mL of the sample into a 1.5 mL conical microcentrifuge tube.

Note: Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.

2. Centrifuge the tube for 30 minutes at a speed between 14,000 and 20,000 g to create a pellet.
3. Discard all the supernatant using a pipette.
4. Add 500 µL of 0.45% NaCl sterile aqueous solution and use a pipette to gently mix up and down to resuspend the pellet.
5. Centrifuge the tube for 30 minutes at a speed between 14,000 and 20,000 g to create a pellet.
6. Discard all the supernatant using a pipette.

7. Proceed according to the presence of a visible or invisible pellet.

If the pellet is visible:

- Add 5 µL (for small pellet) to 10 µL (for large pellet) of 0.45% NaCl sterile aqueous solution to gently resuspend the pellet.
- Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the sample preparation.

If the pellet is not visible:

- Add 3 µL of VITEK® MS-CHCA matrix to gently resuspend the pellet.

IMPORTANT: If you spill any *E. coli* ATCC® 8739™ strain or VITEK® MS-CHCA matrix on a VITEK® MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and sample preparation.

- Deposit 1 µL of the suspension on the designated target slide spot.
 - Allow the spot to dry completely.
 - Add 1 µL of VITEK® MS-CHCA matrix to the target slide spot using a pipette and replacing the pipette tip after each addition of matrix.
 - Allow the spot to dry completely.
- Deposit 1.5 µL of the suspension on the designated target slide spot.
 - Allow the spot to dry completely.

Note: *There is no need to add VITEK® MS-CHCA matrix.*

8. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

If the pellet is not visible and the VITEK® MS instrument gives NoID result, the growth may have been insufficient. In this case, re-incubate the culture broth and re-analyze the Mycoplasma sample following the same protocol.

IMPORTANT: Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 2 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.

Preparation of *Brucella*

WARNING



Powder-free gloves should be used when handling VITEK® MS-DS target slides.

WARNING



To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Brucella*.

All manipulations of *Brucella* must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of *Brucella* sp. grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.

IMPORTANT: Do not use loops that may have come into contact with anything other than the sample strain to be tested.

Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix and the inactivation solvent mixture. Change the pipette tip after each individual deposit to avoid contamination of the matrix.

Note: The VITEK® MS-CHCA matrix and the inactivation solvent mixtures contain a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

1. Prepare a fresh inactivation solvent mixture as described hereafter. This solvent mixture must be prepared daily.
The quantities shown below can accommodate approximately 100 extractions; the formula should be scaled down accordingly.
 - First mix:
 - 7 mL of suspension medium or sterile deionized water
 - 7 mL of absolute ethanol (HPLC grade)
 - 7 mL of acetonitrile (HPLC grade)
 - Homogenize.
 - Add 630 µL of trifluoroacetic acid (TFA) (HPLC grade).
 - Homogenize.
2. Use a sterile 1 µL loop to suspend 2 full loops of test organism in a microcentrifuge round-bottomed tube containing 200 µL of prepared solvent mixture and mix using a vortex-type mixer.
3. Mix for 5 minutes at maximum speed using a vortex-type mixer with adaptor.
4. Remove from the vortex-type mixer and incubate the tube at room temperature for 10 minutes to complete the inactivation. Keep the tube upright.

Note: *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

5. Centrifuge the sample for 2 minutes at a speed of 14,000 g to create a pellet.
6. Discard all the supernatant using a pipette.
7. Add 10 µL of VITEK[®] MS-CHCA matrix directly on the pellet **without disturbing the pellet**.

Note: *The following steps can be performed outside the Biological Safety Level 3 Cabinet.*

8. Spot the *E. coli* ATCC[®] 8739[™] control organism and the VITEK[®] MS-CHCA matrix on the calibration spot prior to spotting the sample preparation.

IMPORTANT: *If you spill any *E. coli* ATCC[®] 8739[™] strain or VITEK[®] MS-CHCA matrix on a VITEK[®] MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and sample preparation.*

IMPORTANT: *DO NOT use a vortex-type mixer or resuspend the pellet by pipetting.*

9. Immediately deposit 1 µL of the final sample preparation onto the designated target slide spot.
10. Allow each spot to dry completely.

Note: *There is no need to add VITEK[®] MS-CHCA matrix.*

11. Run the target slide in the VITEK[®] MS instrument according to the instructions included in the VITEK[®] MS Plus Workflow User Manual, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

IMPORTANT: *The sample preparation can be stored in a clean tube at refrigerated temperature for up to 1 day.*

Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.



CAUTION: If you are working inside the BSL-3 laboratory and the VITEK® MS instrument is located outside the laboratory, apply a bactericidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

Preparation of *Streptomyces*

WARNING



Powder-free gloves should be used when handling VITEK[®] MS-DS target slides.

IMPORTANT: Do not use loops or cytology brushes that may have come into contact with anything other than the sample strain to be tested.

Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.

Make sure that only fresh, sterile loops or cytology brushes are used. Discard the loop or cytology brush after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK[®] MS-CHCA matrix and the different reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

Note: The VITEK[®] MS-CHCA matrix and the different reagents contain a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

If Streptomyces strains are not embedded in the agar, direct deposit is also possible (refer to [Preparation of Bacteria on page 1-1](#)).

1. Prepare fresh reagents as described hereafter. These solvent mixtures must be prepared daily.

The quantities shown below can accommodate approximately 1,000 extractions for formic acid and 20 for ethanol; the formula should be scaled down accordingly.

To prepare Formic Acid 70%

- Mix:
 - 3 mL of suspension medium or sterile deionized water
 - 7 mL of formic acid (100% HPLC grade)
- Homogenize.

To prepare Ethanol 70%

- Mix:
 - 3 mL of suspension medium or sterile deionized water
 - 7 mL of ethanol (100% HPLC grade)
- Homogenize.

Acetonitrile (100%)

Acetonitrile (HPLC grade) must be used pure.

2. For each organism to be tested, transfer 500 μ L of 70% ethanol to a 2 mL microcentrifuge round-bottomed tube containing approximately 200 μ L of 0.5 mm glass beads.
3. Use a 1 μ L loop (one loopful) or a curved cytology brush (in case of an embedded strain) to gently pick up and transfer material from the medium to the tube and cap securely.

Note: *If you do not manage to pick up enough material to fill the loop completely, use the curved cytology brush.*

4. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).
5. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation. Keep the tube upright.
6. Mix for 5 to 10 seconds using a vortex-type mixer and immediately transfer the suspension into an empty 2 mL round-bottomed tube using a pipette. Avoid transferring any glass beads. Discard the pipette tip.

Note: *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

7. Centrifuge the sample for 2 minutes at a speed between 10,000 and 14,000 g to create a pellet.
8. Discard all the supernatant using a pipette.

Note: *If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow ethanol to evaporate.*

9. Add 10 µL of 70% formic acid to the pellet. Resuspend by aspiration/dispensing using a pipette until the pellet is uniformly dispersed, or directly with a vortex-type mixer.
10. Add 10 µL of 100% acetonitrile and mix using a vortex-type mixer.
11. Centrifuge for 2 minutes at a speed between 10,000 and 14,000 g to create a pellet.
12. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the sample preparation.

IMPORTANT: *If you spill any *E. coli* ATCC® 8739™ strain or VITEK® MS-CHCA matrix on a VITEK® MS-DS target slide spot, skip that specific spot to avoid cross contamination between calibrator and sample preparation.*

13. For each organism to be tested, immediately transfer 1 µL of the supernatant onto the designated target slide spots.
14. Allow each spot to dry completely.

Note: *If the spots are not completely dry before adding the VITEK® MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK® MS results (No Identification).*

15. Add 1 µL of VITEK® MS-CHCA matrix to each target slide spot using a pipette and replacing the pipette tip after each addition of matrix.
16. Allow each spot to dry completely.
17. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual, ref. 161150-216.

Note: *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

IMPORTANT: *Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.

After testing, if all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use of the unused acquisition groups before the target slide expiry date.

2

Species Included in the SARAMIS[®] Database

This document lists all species of bacteria, fungi, yeasts and *Mycobacterium* that are available in the VITEK[®] MS Plus / RUO SARAMIS[®] V4.15 database.

The SARAMIS[®] V4.15 database includes 27,944 reference Spectra and 4,155 SuperSpectra.

New species in the VITEK[®] MS Plus / RUO SARAMIS[®] V4.15 database appear in bold text in the following lists.

IMPORTANT: The VITEK[®] MS Plus / RUO SARAMIS[®] database is for research use only (RUO) and not for use in diagnostic procedures with clinical specimens or mixed cultures.

Note: *The names of certain organisms may differ to the ones in the IVD version due to taxonomy updates.*

As species names may change over time, please refer to the official taxonomy for the latest updates.

List of Reference Spectra - Algae, Mycota and Yeasts

<i>Acremonium curvulum</i>	<i>Aspergillus parasiticus</i>
<i>Acremonium implicatum</i>	<i>Aspergillus phoenicis</i>
<i>Acremonium murorum</i>	<i>Aspergillus pseudodeflectus</i>
<i>Acremonium persicinum</i>	<i>Aspergillus restrictus</i>
<i>Acremonium polychromum</i>	<i>Aspergillus rubrobrunneus</i>
<i>Acremonium sclerotigenum</i>	<i>Aspergillus sclerotioniger</i>
<i>Actinomucor elegans</i>	<i>Aspergillus</i> spp
<i>Alternaria alternata</i>	<i>Aspergillus sydowii</i>
<i>Alternaria infectoria</i>	<i>Aspergillus tamarai</i>
<i>Alternaria</i> spp	<i>Aspergillus terreus</i> complex
<i>Alternaria tenuissima</i>	<i>Aspergillus tetrazonus</i>
<i>Arthroderma benhamiae</i>	<i>Aspergillus thermomutatus</i>
<i>Arthroderma fulvum</i>	<i>Aspergillus tubingensis</i>
<i>Arthrographis kalrae</i>	<i>Aspergillus unguis</i>
<i>Aspergillus aculeatus</i>	<i>Aspergillus vadensis</i>
<i>Aspergillus alabamensis</i>	<i>Aspergillus versicolor</i>
<i>Aspergillus allahabadii</i>	<i>Aspergillus westerdijkiae</i>
<i>Aspergillus brasiliensis</i>	<i>Aureobasidium pullulans</i>
<i>Aspergillus calidoustus</i>	<i>Aureobasidium pullulans</i> var <i>pullulans</i>
<i>Aspergillus candidus</i>	<i>Barnettozyma californica</i>
<i>Aspergillus carbonarius</i>	<i>Beauveria bassiana</i>
<i>Aspergillus creber</i>	<i>Bipolaris cynodontis</i>
<i>Aspergillus ellipticus</i>	<i>Bjerkandera adusta</i>
<i>Aspergillus flavipes</i>	<i>Blastobotrys adenivorans</i>
<i>Aspergillus flavus</i>	<i>Blastomyces dermatitidis</i>
<i>Aspergillus fumigatiaffinis</i>	<i>Boeremia exigua</i>
<i>Aspergillus fumigatus</i>	<i>Brettanomyces anomalus</i>
<i>Aspergillus glaucus</i>	<i>Brettanomyces bruxellensis</i>
<i>Aspergillus ibericus</i>	↳ Old name: <i>Dekkera bruxellensis</i>
<i>Aspergillus japonicus</i>	<i>Brettanomyces naardenensis</i>
<i>Aspergillus lacticoffeatus</i>	<i>Candida aaseri</i>
<i>Aspergillus lentulus</i>	<i>Candida africana</i>
<i>Aspergillus nidulans</i>	<i>Candida albicans</i>
<i>Aspergillus niger</i> complex	<i>Candida auris</i>
<i>Aspergillus niveus</i>	<i>Candida blankii</i>
<i>Aspergillus ochraceus</i>	<i>Candida boidinii</i>
<i>Aspergillus oryzae</i>	<i>Candida bracarensis</i>

Candida cariosilignicola

Candida catenulata

Candida ciferrii

Candida colliculosa

Candida cylindracea

Candida dattila

Candida deserticola

Candida dubliniensis

Candida duobushaemulonii

Candida edax

Candida fabianii

Candida famata

Candida fermentati

Candida freyschussii

Candida glabrata

Candida globosa

Candida guilliermondii

Candida haemulonii

Candida holmii

Candida inconspicua

Candida intermedia

Candida ishiwadae

Candida kefyr

Candida krusei

Candida lambica

Candida lipolytica

Candida lusitanae

Candida magnoliae

Candida melibiosica

Candida metapsilosis

Candida nivariensis

Candida norvegensis

Candida norvegica

Candida orthopsilosis

Candida palmioleaphila

Candida parapsilosis

Candida pararugosa

Candida pelliculosa

Candida pulcherrima

Candida quercitrusa

Candida rugosa

Candida sake

Candida silvicola

Candida slooffiae

Candida sorbosa

Candida sphaerica

Candida steatolytica

Candida thermophila

Candida tropicalis

Candida utilis

Candida valida

Candida variabilis

Candida viswanathii

Candida zeylanoides

Cephalophora irregularis

Cephalotheca foveolata

Cephalotheca purpurea

Chaetomium globosum

Chaetomium spp

Chrysosporium indicum

Chrysosporium keratinophilum

Chrysosporium spp

Chrysosporium tuberculatum

Cladophialophora bantiana

Cladophialophora mycetomatis

Cladosporium cladosporioides

Cladosporium ramotenellum

Cladosporium sphaerospermum

Cladosporium spp

Coccidioides immitis

Coccidioides posadasii

Colletotrichum gloeosporioides

Coprinellus radians

Corioloopsis polyzona

Cryptococcus albidus

Cryptococcus aureus

Cryptococcus curvatus

Cryptococcus gattii

Cryptococcus humicola*Cryptococcus laurentii***Cryptococcus magnus***Cryptococcus neoformans**Cryptococcus terreus**Cryptococcus uniguttulatus**Cunninghamella bertholletiae***Cunninghamella elegans****Curvularia hawaiiensis****Curvularia lunata****Curvularia spicifera***Cyberlindnera rhodanensis**Cyberlindnera saturnus**Cyphellophora europaea**Debaryomyces* spp**Diatrype stigma****Duddingtonia flagrans***Epicoccum nigrum**Epidermophyton floccosum**Eurotium amstelodami***Eutypella scoparia****Exophiala aquamarina***Exophiala dermatitidis**Exophiala jeanselmei**Exophiala lecanii-corni***Exophiala phaeomuriformis complex****Exophiala spinifera***Exophiala* spp**Exophiala xenobiotica****Exserohilum rostratum****Fonsecaea monophora****Fusarium acuminatum****Fusarium chlamydosporum***Fusarium dimerum**Fusarium graminearum***Fusarium incarnatum***Fusarium nygamai**Fusarium oxysporum**Fusarium oxysporum f.sp. aechmeae***Fusarium oxysporum f.sp. cyclaminis***Fusarium proliferatum**Fusarium proliferatum var minus**Fusarium scirpi**Fusarium solani**Fusarium* spp**Fusarium thapsinum****Fusarium tritinctum***Fusarium verticillioides**Geotrichum candidum**Geotrichum fermentans**Geotrichum klebahnii**Geotrichum* spp**Gliocladium spp****Histoplasma capsulatum***Hypocrea* spp**Irpex lacteus***Kloeckera apiculata**Kloeckera apis**Kloeckera japonica***Knufia spp***Kodamaea ohmeri***Komagataella pastoris****Lachancea fermentati***Lachancea kluyveri***Lecanicillium spp****Lecythophora fasciculata****Lecythophora hoffmannii****Lecythophora lignicola****Lecythophora mutabilis***Lichtheimia corymbifera*↳ Old name: *Absidia corymbifera**Lodderomyces elongisporus**Malassezia furfur***Malassezia globosa***Malassezia pachydermatis***Metarhizium anisopliae***Microsporum audouinii**Microsporum canis*

<i>Microsporium cookei</i>	<i>Penicillium camemberti</i>
<i>Microsporium ferrugineum</i>	<i>Penicillium capsulatum</i>
<i>Microsporium fulvum</i>	<i>Penicillium carneum</i>
<i>Microsporium gallinae</i>	<i>Penicillium chrysogenum</i>
<i>Microsporium gypseum</i>	<i>Penicillium cinnamopurpureum</i>
<i>Microsporium persicolor</i>	<i>Penicillium citrinum</i>
<i>Microsporium praecox</i>	<i>Penicillium commune</i>
<i>Microsporium racemosum</i>	<i>Penicillium crustosum</i>
<i>Microsporium</i> spp	<i>Penicillium decumbens</i>*
<i>Millerozyma farinosa</i>	<i>Penicillium expansum</i>
<i>Monascus pilosus/ruber</i>	<i>Penicillium funiculosum</i>
<i>Monascus purpureus</i>	<i>Penicillium glabrum</i>
<i>Mucor circinelloides</i>	<i>Penicillium griseofulvum</i>
<i>Mucor circinelloides</i> ssp <i>circinelloides</i>	<i>Penicillium italicum</i>
<i>Mucor irregularis</i>	<i>Penicillium janthinellum</i>
<i>Mucor lanceolatus</i>	<i>Penicillium marneffeii</i>
<i>Mucor plumbeus</i>	<i>Penicillium oxalicum</i>
<i>Mucor racemosus</i>	<i>Penicillium pinophilum</i>
<i>Mucor velutinosus</i>	<i>Penicillium purpurogenum</i>
<i>Mycocleptodiscus indicus</i>	<i>Penicillium resedanum</i>
<i>Mycotypha microspora</i>	<i>Penicillium roqueforti</i>
<i>Myriodontium keratinophilum</i>	<i>Penicillium rugulosum</i>
<i>Myrmecridium schulzeri</i>	<i>Penicillium</i> spp
<i>Myrothecium</i> spp	<i>Penicillium sumatraense</i>
<i>Neosartorya fischeri</i>	<i>Penicillium toxicarium</i>
<i>Neoscytalidium dimidiatum</i>	<i>Penicillium vermiculatum</i>
<i>Nigrospora</i> spp	<i>Peniophora</i> spp
<i>Nodulisporium</i> spp	<i>Phaeoacremonium fuscum</i>
<i>Ochroconis humicola</i>	<i>Phaeoacremonium venezuelense</i>
<i>Oxyporus corticola</i>	<i>Phanerochaete</i> spp
<i>Paecilomyces formosus</i>	<i>Phellinus</i> spp
<i>Paecilomyces fulvus</i>	<i>Phialemonium obovatum</i>
<i>Paecilomyces niveus</i>	<i>Phialophora americana</i>
<i>Paecilomyces variotii</i>	<i>Phialophora richardsiae</i>
<i>Paracoccidioides brasiliensis</i>	<i>Phlebia brevispora</i>
<i>Penicillium aculeatum</i>	<i>Phlebia</i> spp
<i>Penicillium aurantiacum</i>	<i>Phoma glomerata</i>
<i>Penicillium aurantigriseum</i>	<i>Phoma herbarum</i>
<i>Penicillium brevicompactum</i>	<i>Phoma pomorum</i>

* There is a possibility of cross-identification between *Penicillium decumbens* and *Penicillium corylophilum* (not in the database)

Phoma sorghina*Pichia cactophila**Priceomyces carsonii**Prototheca wickerhamii**Prototheca zopfii**Pseudallescheria boydii***Pseudallescheria minutispora***Purpureocillium lilacinum*↳ Old name: *Paecilomyces lilacinus***Pyrenochaeta corni****Pythium aphanidermatum****Rasamsonia argillacea****Rhizomucor miehei***Rhizomucor pusillus***Rhizopus arrhizus***Rhizopus microsporus***Rhizopus schipperae***Rhizopus* spp*Rhodotorula glutinis***Rhodotorula graminis***Rhodotorula minuta**Rhodotorula mucilaginoso**Rhodotorula* spp*Saccharomyces cerevisiae**Saccharomyces pastorianus***Sagenomella oligospora****Saksenaea erythrospora****Saksenaea spp****Saksenaea vasiformis***Saprochaete capitata**Saprochaete clavata*↳ Old name: *Geotrichum clavatum***Sarocladium kiliense***Sarocladium zeae**Scedosporium apiospermum***Scedosporium prolificans***Scedosporium* spp*Schizophyllum commune**Schwanniomyces etchellsii**Schwanniomyces polymorphus**Scopulariopsis brevicaulis***Scopulariopsis cinerea***Simplicillium* spp*Sporobolomyces salmonicolor***Sporothrix pallida***Sporothrix schenkii***Sporothrix variecibatus****Stachybotrys chartarum****Stachybotrys chlorohalonata***Syncephalastrum racemosum***Trametes lactinea***Trichoderma brevicompactum**Trichoderma ghanense**Trichoderma harzianum***Trichoderma longibrachiatum***Trichoderma reesei**Trichoderma* spp*Trichomonascus farinosus**Trichophyton ajelloi**Trichophyton balcaneum**Trichophyton concentricum**Trichophyton eboreum**Trichophyton equinum**Trichophyton erinacei**Trichophyton interdigitale**Trichophyton mentagrophytes**Trichophyton rubrum**Trichophyton rubrum african**Trichophyton rubrum* var. *raubitschekii**Trichophyton schoenleinii**Trichophyton* spp*Trichophyton terrestre**Trichophyton thuringiense**Trichophyton tonsurans**Trichophyton verrucosum**Trichophyton verrucosum* var. *ochraceum**Trichophyton violaceum**Trichosporon asahii*

Trichosporon asteroides

Trichosporon coremiiforme

Trichosporon cutaneum

Trichosporon debeurmannianum

Trichosporon dermatis

Trichosporon dermatis/mucoides

Trichosporon inkin

Trichosporon mucoides

Trichosporon ovoides

Trichosporon spp

Verticillium leptobactrum

Xenoacremonium recifei

↳ Old name: *Acronium recifei*

Zygosaccharomyces bailii

Zygosaccharomyces bisporus

Zygosaccharomyces rouxii

Zygosaccharomyces spp

List of Reference Spectra - Bacteria Species

<i>Abiotrophia defectiva</i>	<i>Actinobacillus pleuropneumoniae</i>
<i>Acetobacter aceti</i>	<i>Actinobacillus seminis</i>
<i>Achromobacter denitrificans</i>	<i>Actinobacillus ureae</i>
<i>Achromobacter denitrificans/xylosoxidans</i>	Actinobaculum suis
<i>Achromobacter insolitus</i>	Actinomyces bovis
<i>Achromobacter marplatensis</i>	<i>Actinomyces denticolens</i>
<i>Achromobacter piechaudii</i>	<i>Actinomyces europaeus</i>
<i>Achromobacter piechaudii/spanius</i>	Actinomyces gerencseriae
<i>Achromobacter ruhlandii</i>	<i>Actinomyces graevenitzii</i>
<i>Achromobacter spanius</i>	Actinomyces israelii
<i>Achromobacter spp</i>	<i>Actinomyces meyeri</i>
<i>Achromobacter xylosoxidans</i>	<i>Actinomyces naeslundii</i>
Acidipropionibacterium acidipropionici	<i>Actinomyces neuii</i>
Acidipropionibacterium jensenii	<i>Actinomyces neuii ssp anitratus</i>
<i>Acidovorax temperans</i>	Actinomyces neuii ssp neuii
<i>Acinetobacter baumannii</i>	<i>Actinomyces odontolyticus</i>
Acinetobacter beijerinckii	Actinomyces oris
<i>Acinetobacter bereziniae</i>	Actinomyces radingae
<i>Acinetobacter calcoaceticus</i>	<i>Actinomyces spp</i>
<i>Acinetobacter courvalinii</i>	<i>Actinomyces turicensis</i>
<i>Acinetobacter guillouiae</i>	Actinomyces urogenitalis
Acinetobacter gyllenbergii	<i>Actinomyces viscosus</i>
<i>Acinetobacter haemolyticus</i>	<i>Actinotignum schaalii</i>
<i>Acinetobacter johnsonii</i>	↳ Old name: <i>Actinobaculum schaalii</i>
<i>Acinetobacter junii</i>	<i>Advenella incenata</i>
<i>Acinetobacter lwoffii</i>	<i>Aeribacillus pallidus</i>
<i>Acinetobacter nosocomialis</i>	<i>Aerococcus sanguinicola</i>
<i>Acinetobacter pittii</i>	<i>Aerococcus spp</i>
<i>Acinetobacter radioresistens</i>	<i>Aerococcus urinae</i>
<i>Acinetobacter schindleri</i>	<i>Aerococcus viridans</i>
Acinetobacter seifertii	<i>Aeromonas bestiarum</i>
<i>Acinetobacter spp</i>	<i>Aeromonas eucrenophila</i>
<i>Acinetobacter ursingii</i>	<i>Aeromonas hydrophila</i>
<i>Acinetobacter variabilis</i>	<i>Aeromonas hydrophila ssp hydrophila</i>
<i>Actinobacillus arthritidis</i>	<i>Aeromonas punctata (caviae)</i>
<i>Actinobacillus capsulatus</i>	<i>Aeromonas salmonicida ssp masoucida</i>
<i>Actinobacillus equuli ssp haemolyticus</i>	<i>Aeromonas salmonicida ssp salmonicida</i>

<i>Aeromonas sobria</i>	<i>Arthrobacter flavus</i>
<i>Aeromonas</i> spp	<i>Arthrobacter gandavensis</i>
<i>Aeromonas tecta</i>	<i>Arthrobacter globiformis</i>
<i>Aeromonas veronii</i>	<i>Arthrobacter luteolus</i>
<i>Aeromonas veronii</i> biovar <i>sobria</i>	<i>Arthrobacter methylotrophus</i>
<i>Aeromonas veronii</i> biovar <i>veronii</i>	<i>Arthrobacter monumenti</i>
<i>Aggregatibacter actinomycetemcomitans</i>	<i>Arthrobacter nasiphocae</i>
<i>Aggregatibacter aphrophilus</i>	<i>Arthrobacter nitroguajacolicus</i>
<i>Aggregatibacter segnis</i>	<i>Arthrobacter parietis</i>
<i>Aggregatibacter</i> spp	<i>Arthrobacter pascens</i>
<i>Alcaligenes faecalis</i>	<i>Arthrobacter pigmenti</i>
<i>Alcaligenes faecalis</i> ssp <i>faecalis</i>	<i>Arthrobacter psychrolactophilus</i>
<i>Alcaligenes</i> spp	<i>Arthrobacter ramosus</i>
<i>Alicyclobacillus acidocaldarius</i>	<i>Arthrobacter rhombi</i>
<i>Alicyclobacillus acidoterrestris</i>	<i>Arthrobacter roseus</i>
<i>Alloiococcus otitis</i>	<i>Arthrobacter russicus</i>
<i>Aminobacter</i> spp	<i>Arthrobacter</i> spp
<i>Anaerobiospirillum succiniciproducens</i>	<i>Arthrobacter stackebrandtii</i>
<i>Anaerococcus hydrogenalis</i>	<i>Arthrobacter tecti</i>
<i>Anaerococcus lactolyticus</i>	<i>Arthrobacter tumbae</i>
<i>Anaerococcus lactolyticus/murdochii</i>	<i>Arthrobacter woluwensis</i>
<i>Anaerococcus murdochii</i>	<i>Atopobium parvulum</i>
<i>Anaerococcus prevotii</i>	<i>Avibacterium gallinarum</i>
<i>Anaerococcus</i> spp	<i>Bacillus altitudinis</i>
<i>Anaerococcus tetradius</i>	<i>Bacillus amyloliquefaciens</i>
<i>Anaerococcus vaginalis</i>	<i>Bacillus anthracis</i>
<i>Aneurinibacillus aneurinilyticus</i>	<i>Bacillus atrophaeus</i>
<i>Aneurinibacillus migulanus</i>	<i>Bacillus badius</i>
<i>Aneurinibacillus thermoaerophilus</i>	<i>Bacillus beringensis</i>
<i>Anoxybacillus flavithermus</i>	<i>Bacillus butanolivorans</i>
<i>Arcanobacterium haemolyticum</i>	<i>Bacillus cereus</i>
<i>Arcanobacterium hippocoleae</i>	<i>Bacillus cereus</i> group
<i>Arcanobacterium</i> spp	<i>Bacillus circulans</i>
<i>Arcobacter butzleri</i>	<i>Bacillus clausii</i>
<i>Arcobacter cryaerophilus</i>	<i>Bacillus coagulans</i>
<i>Arthrobacter agilis</i>	<i>Bacillus cytotoxicus</i>
<i>Arthrobacter castelli</i>	<i>Bacillus endophyticus</i>
<i>Arthrobacter citreus</i>	<i>Bacillus firmus</i>
<i>Arthrobacter crystallopoietes</i>	<i>Bacillus fordii</i>

<i>Bacillus fortis</i>	<i>Bacteroides pyogenes</i>
<i>Bacillus galactosidilyticus</i>	<i>Bacteroides salyersiae</i>
<i>Bacillus gibsonii</i>	<i>Bacteroides</i> spp
<i>Bacillus ginsengihumi</i>	<i>Bacteroides stercoris</i>
<i>Bacillus horneckiae</i>	<i>Bacteroides thetaiotaomicron</i>
<i>Bacillus idriensis</i>	<i>Bacteroides uniformis</i>
<i>Bacillus infantis</i>	<i>Bacteroides vulgatus</i>
<i>Bacillus lentus</i>	<i>Bacteroides xylanisolvens</i>
<i>Bacillus licheniformis</i>	<i>Bergeyella zoohelcum</i>
<i>Bacillus megaterium</i>	<i>Bifidobacterium adolescentis</i>
<i>Bacillus mycoides</i>	<i>Bifidobacterium angulatum</i>
<i>Bacillus oleronius</i>	<i>Bifidobacterium animalis</i> ssp <i>animalis</i>
<i>Bacillus pseudofirmus</i>	<i>Bifidobacterium animalis</i> ssp <i>lactis</i>
<i>Bacillus pseudomycooides</i>	<i>Bifidobacterium asteroides</i>
<i>Bacillus psychrosaccharolyticus</i>	<i>Bifidobacterium bifidum</i>
<i>Bacillus pumilus</i>	<i>Bifidobacterium boum</i>
<i>Bacillus simplex</i>	<i>Bifidobacterium breve</i>
<i>Bacillus smithii</i>	<i>Bifidobacterium catenulatum</i>
<i>Bacillus sporothermodurans</i>	<i>Bifidobacterium choerinum</i>
<i>Bacillus</i> spp	<i>Bifidobacterium coryneforme</i>
<i>Bacillus subtilis</i>	<i>Bifidobacterium cuniculi</i>
<i>Bacillus subtilis</i> ssp <i>spizizenii</i>	<i>Bifidobacterium dentium</i>
<i>Bacillus thermoamylovorans</i>	<i>Bifidobacterium gallicum</i>
<i>Bacillus thuringiensis</i>	<i>Bifidobacterium gallinarum</i>
<i>Bacteroides acidifaciens</i>	<i>Bifidobacterium longum</i>
<i>Bacteroides caccae</i>	<i>Bifidobacterium magnum</i>
<i>Bacteroides cellulosilyticus</i>	<i>Bifidobacterium merycicum</i>
<i>Bacteroides coprophilus</i>	<i>Bifidobacterium minimum</i>
<i>Bacteroides coprosuis</i>	<i>Bifidobacterium pseudocatenulatum</i>
<i>Bacteroides dorei</i>	<i>Bifidobacterium pseudolongum</i> ssp <i>globosum</i>
<i>Bacteroides eggerthii</i>	<i>Bifidobacterium pseudolongum</i> ssp <i>pseudolongum</i>
<i>Bacteroides fragilis</i>	<i>Bifidobacterium pullorum</i>
<i>Bacteroides gallinarum</i>	<i>Bifidobacterium ruminantium</i>
<i>Bacteroides helcogenes</i>	<i>Bifidobacterium saeculare</i>
<i>Bacteroides intestinalis</i>	<i>Bifidobacterium scardovii</i>
<i>Bacteroides massiliensis</i>	<i>Bifidobacterium</i> spp
<i>Bacteroides nordii</i>	<i>Bifidobacterium thermacidophilum</i> ssp <i>porcinum</i>
<i>Bacteroides ovatus</i>	
<i>Bacteroides plebeius</i>	

Bifidobacterium thermacidophilum ssp
thermacidophilum

Bifidobacterium thermophilum

Bilophila spp

Bilophila wadsworthia

Blastomonas ursincola

Bordetella avium

Bordetella bronchiseptica

Bordetella hinzii

Bordetella holmesii

Bordetella parapertussis

Bordetella pertussis

Bordetella petrii

Bordetella spp

Bordetella trematum

Brachybacterium spp

Brachyspira intermedia

Brachyspira pilosicoli

Brevibacillus agri

Brevibacillus borstelensis

Brevibacillus brevis

Brevibacillus centrosporus

Brevibacillus choshinensis

Brevibacillus invocatus

Brevibacillus laterosporus

Brevibacillus parabrevis

Brevibacillus thermoruber

Brevibacterium casei

Brevibacterium luteolum

Brevibacterium spp

Brevundimonas diminuta

Brevundimonas diminuta/vesicularis

Brevundimonas spp

Brevundimonas vesicularis

Brochothrix thermosphacta

Brucella abortus

↳ Old name: *Brucella melitensis* biovar *abortus*

***Brucella abortus* biovar 1**

***Brucella abortus* biovar 2**

***Brucella abortus* biovar 3**

***Brucella abortus* biovar 4**

***Brucella abortus* biovar 5**

***Brucella abortus* biovar 6**

***Brucella abortus* biovar 7**

***Brucella abortus* biovar 9**

Brucella canis

Brucella ceti

Brucella inopinata

Brucella melitensis

***Brucella melitensis* biovar 1**

***Brucella melitensis* biovar 2**

***Brucella melitensis* biovar 3**

Brucella microti

Brucella neotamae

↳ Old name: *Brucella melitensis* biovar *neotamae*

Brucella ovis

↳ Old name: *Brucella melitensis* biovar *ovis*

Brucella papionis

Brucella pinnipedialis

Brucella suis

↳ Old name: *Brucella melitensis* biovar *suis*

***Brucella suis* biovar 1**

***Brucella suis* biovar 2**

***Brucella suis* biovar 3**

***Brucella suis* biovar 4**

***Brucella suis* biovar 5**

Budvicia aquatica

Burkholderia ambifaria

Burkholderia anthina

Burkholderia arboris

Burkholderia cenocepacia

Burkholderia cepacia

Burkholderia contaminans

Burkholderia diffusa

Burkholderia dolosa

Burkholderia gladioli

Burkholderia lata

Burkholderia latens

<i>Burkholderia metallica</i>	<i>Chryseobacterium defluvii</i>
<i>Burkholderia multivorans</i>	<i>Chryseobacterium gleum</i>
<i>Burkholderia pyrrocinia</i>	<i>Chryseobacterium indologenes</i>
<i>Burkholderia seminalis</i>	<i>Chryseobacterium spp</i>
<i>Burkholderia spp</i>	<i>Citrobacter amalonaticus</i>
<i>Burkholderia stabilis</i>	<i>Citrobacter amalonaticus/farmeri</i>
<i>Burkholderia thailandensis</i>	<i>Citrobacter braakii</i>
<i>Burkholderia ubonensis</i>	<i>Citrobacter farmeri</i>
<i>Burkholderia vietnamiensis</i>	<i>Citrobacter freundii</i>
<i>Buttiauxella agrestis</i>	<i>Citrobacter freundii/braakii</i>
<i>Caldibacillus debilis</i>	<i>Citrobacter koseri</i>
<i>Campylobacter coli</i>	<i>Citrobacter rodentium</i>
<i>Campylobacter fetus ssp fetus</i>	<i>Citrobacter sedlakii</i>
<i>Campylobacter fetus ssp venerealis</i>	<i>Citrobacter werkmanii</i>
<i>Campylobacter hyointestinalis</i>	<i>Citrobacter youngae</i>
<i>Campylobacter jejuni</i>	<i>Clostridium baratii</i>
<i>Campylobacter jejuni ssp doylei</i>	<i>Clostridium beijerinckii</i>
<i>Campylobacter jejuni ssp jejuni</i>	<i>Clostridium butyricum</i>
<i>Campylobacter lari</i>	<i>Clostridium cadaveris</i>
<i>Campylobacter spp</i>	<i>Clostridium chauvoei</i>
<i>Campylobacter sputorum</i>	<i>Clostridium clostridioforme</i>
<i>Campylobacter upsaliensis</i>	<i>Clostridium difficile</i>
<i>Campylobacter ureolyticus</i>	<i>Clostridium paraputrificum</i>
<i>Capnocytophaga canimorsus</i>	<i>Clostridium perfringens</i>
<i>Capnocytophaga gingivalis</i>	<i>Clostridium ramosum</i>
<i>Capnocytophaga granulosa</i>	<i>Clostridium scatologenes</i>
<i>Capnocytophaga ochracea</i>	<i>Clostridium septicum</i>
<i>Capnocytophaga spp</i>	<i>Clostridium spiroforme</i>
<i>Capnocytophaga sputigena</i>	<i>Clostridium sporogenes</i>
<i>Cardiobacterium hominis</i>	<i>Clostridium spp</i>
<i>Carnobacterium divergens</i>	<i>Clostridium tertium</i>
<i>Carnobacterium maltaromaticum</i>	<i>Clostridium tetani</i>
<i>Cedecea davisae</i>	<i>Clostridium tetanomorphum</i>
<i>Cedecea lapagei</i>	<i>Coenonia anatina</i>
<i>Cedecea neteri</i>	<i>Comamonas aquatica</i>
<i>Cellulomonas uda</i>	<i>Comamonas spp</i>
<i>Chlorobium phaeobacteroides</i>	<i>Comamonas testosteroni</i>
<i>Chromobacterium violaceum</i>	<i>Corynebacterium accolens</i>
<i>Chryseobacterium daecheongense</i>	<i>Corynebacterium amycolatum</i>

<i>Corynebacterium amycolatum/striatum</i>	<i>Delftia</i> spp
<i>Corynebacterium aurimucosum</i>	<i>Dermabacter hominis</i>
<i>Corynebacterium auris</i>	<i>Dermacoccus nishinomiyaensis</i>
<i>Corynebacterium bovis</i>	<i>Desulfocapsa</i> spp
<i>Corynebacterium diphtheriae</i>	<i>Dysgonomonas gadei</i>
<i>Corynebacterium freneyi</i>	<i>Edwardsiella hoshinae</i>
<i>Corynebacterium glucuronolyticum</i>	<i>Edwardsiella tarda</i>
<i>Corynebacterium jeikeium</i>	<i>Eggerthella lenta</i>
<i>Corynebacterium kutscheri</i>	<i>Eggerthella</i> spp
<i>Corynebacterium macginleyi</i>	<i>Eggerthia catenaformis</i>
<i>Corynebacterium minutissimum</i>	<i>Eikenella corrodens</i>
<i>Corynebacterium mucifaciens</i>	<i>Eikenella</i> spp
<i>Corynebacterium propinquum</i>	<i>Elizabethkingia anophelis</i>
<i>Corynebacterium pseudodiphtheriticum</i>	<i>Elizabethkingia endophytica</i>
<i>Corynebacterium renale</i>	<i>Elizabethkingia meningoseptica</i>
<i>Corynebacterium riegellii</i>	<i>Elizabethkingia miricola</i>
<i>Corynebacterium</i> spp	<i>Empedobacter brevis</i>
<i>Corynebacterium striatum</i>	<i>Empedobacter falsenii</i>
<i>Corynebacterium tuberculostearicum</i>	<i>Enterobacter aerogenes</i>
<i>Corynebacterium ulcerans</i>	<i>Enterobacter asburiae</i>
<i>Corynebacterium urealyticum</i>	<i>Enterobacter cancerogenus</i>
<i>Corynebacterium xerosis</i>	<i>Enterobacter cloacae</i>
<i>Cronobacter malonaticus</i>	<i>Enterobacter cloacae</i> ssp <i>dissolvens</i>
<i>Cronobacter muytjensii</i>	<i>Enterobacter hormaechei/cloacae</i>
<i>Cronobacter sakazakii</i>	<i>Enterobacter kobei</i>
<i>Cronobacter turicensis</i>	<i>Enterobacter ludwigii</i>
<i>Cupriavidus gilardii</i>	<i>Enterobacter soli</i>
<i>Cupriavidus necator</i>	<i>Enterobacter</i> spp
<i>Cupriavidus oxalaticus</i>	<i>Enterobacteriaceae</i>
<i>Cupriavidus pauculus</i>	<i>Enterococcus avium</i>
<i>Cupriavidus respiraculi</i>	<i>Enterococcus casseliflavus</i>
<i>Cutibacterium acnes</i>	<i>Enterococcus casseliflavus/gallinarum</i>
↳ Old name: <i>Propionibacterium acnes</i>	<i>Enterococcus cecorum</i>
<i>Cutibacterium avidum</i>	<i>Enterococcus columbae</i>
↳ Old name: <i>Propionibacterium avidum</i>	<i>Enterococcus durans</i>
<i>Cutibacterium granulosum</i>	<i>Enterococcus faecalis</i>
↳ Old name: <i>Propionibacterium granulosum</i>	<i>Enterococcus faecium</i>
<i>Deinococcus</i> spp	<i>Enterococcus gallinarum</i>
<i>Delftia acidovorans</i>	<i>Enterococcus hirae</i>

Enterococcus italicus**Enterococcus mundtii***Enterococcus raffinosus**Enterococcus saccharolyticus**Erysipelothrix rhusiopathiae**Escherichia albertii**Escherichia coli**Escherichia fergusonii**Escherichia hermannii**Escherichia* spp*Escherichia vulneris***Eubacterium callanderi***Eubacterium limosum**Ewingella americana**Exiguobacterium acetylicum**Exiguobacterium* spp*Facklamia hominis**Fingoldia magna**Flavobacterium* spp*Flavonifractor plautii*↳ Old name: *Eubacterium plautii**Fluoribacter dumoffii**Fluoribacter gormanii**Francisella philomiragia**Francisella tularensis* ssp *holarctica**Franconibacter helveticus**Franconibacter pulveris***Fusobacterium gonidiaformans***Fusobacterium mortiferum***Fusobacterium naviforme***Fusobacterium necrogenes**Fusobacterium necrophorum**Fusobacterium necrophorum* ssp *necrophorum**Fusobacterium nucleatum**Fusobacterium nucleatum* ssp *nucleatum***Fusobacterium periodonticum***Fusobacterium russii**Fusobacterium varium**Gallibacterium anatis**Gardnerella vaginalis**Gemella bergeri**Gemella haemolysans**Gemella morbillorum**Gemella sanguinis**Geobacillus caldoxylosilyticus**Geobacillus stearothermophilus**Geobacillus thermodenitrificans**Geobacillus thermoglucosidasius**Globicatella sanguinis**Globicatella sulfidificans**Glutamicibacter ardleyensis**Glutamicibacter arilaitensis**Glutamicibacter bergerei**Glutamicibacter creatinolyticus**Glutamicibacter mysorens**Glutamicibacter nicotianae**Glutamicibacter protophormiae**Glutamicibacter uratoxydans**Gordonia alkanivorans***Gordonia amarae****Gordonia bronchialis****Gordonia namibiensis****Gordonia polyisoprenivorans****Gordonia rubripertincta***Gordonia sputi***Gordonia terrae***Granulicatella adiacens**Granulicatella elegans**Grimontia hollisae**Haematobacter massiliensis**Haemophilus ducreyi***Haemophilus haemoglobinophilus***Haemophilus haemolyticus**Haemophilus influenzae**Haemophilus parahaemolyticus**Haemophilus parainfluenzae**Haemophilus parasuis**Haemophilus* spp

<i>Hafnia alvei</i>	<i>Lactobacillus brevis</i>
<i>Hathewayia histolytica</i>	<i>Lactobacillus buchneri</i>
<i>Hathewayia limosa</i>	<i>Lactobacillus casei</i>
<i>Helcococcus kunzii</i>	<i>Lactobacillus collinoides</i>
<i>Helcococcus ovis</i>	<i>Lactobacillus coryniformis</i>
<i>Helicobacter pylori</i>	<i>Lactobacillus crispatus</i>
<i>Herbaspirillum huttiense</i>	<i>Lactobacillus curvatus</i>
<i>Histophilus somni</i>	<i>Lactobacillus delbrueckii ssp bulgaricus</i>
<i>Ideonella spp</i>	<i>Lactobacillus delbrueckii ssp delbrueckii</i>
<i>Inquilinus limosus</i>	<i>Lactobacillus delbrueckii ssp lactis</i>
<i>Janthinobacterium agaricidamnosum</i>	<i>Lactobacillus fermentum</i>
<i>Janthinobacterium lividum</i>	<i>Lactobacillus fructivorans</i>
<i>Kineosporia aurantiaca</i>	<i>Lactobacillus fuchuensis</i>
<i>Kingella denitrificans</i>	<i>Lactobacillus gasseri</i>
<i>Kingella kingae</i>	<i>Lactobacillus helveticus</i>
<i>Klebsiella oxytoca</i>	<i>Lactobacillus hilgardii</i>
<i>Klebsiella pneumoniae</i>	<i>Lactobacillus iners</i>
<i>Klebsiella pneumoniae ssp ozaenae</i>	<i>Lactobacillus ingluviei</i>
<i>Klebsiella pneumoniae ssp pneumoniae</i>	<i>Lactobacillus intestinalis</i>
<i>Klebsiella pneumoniae ssp rhinoscleromatis</i>	<i>Lactobacillus jensenii</i>
<i>Klebsiella spp</i>	<i>Lactobacillus johnsonii</i>
<i>Kluyvera ascorbata</i>	<i>Lactobacillus kefirii</i>
<i>Kluyvera cryocrescens</i>	<i>Lactobacillus lindneri</i>
<i>Kluyvera intermedia</i>	<i>Lactobacillus mali</i>
<i>Kluyvera spp</i>	<i>Lactobacillus otakiensis</i>
<i>Kocuria carniphila</i>	<i>Lactobacillus parabuchneri</i>
<i>Kocuria kristinae</i>	<i>Lactobacillus paracasei</i>
<i>Kocuria palustris</i>	<i>Lactobacillus paracasei ssp paracasei</i>
<i>Kocuria rhizophila</i>	<i>Lactobacillus paracasei ssp tolerans</i>
<i>Kocuria rosea</i>	<i>Lactobacillus paracollinoides</i>
<i>Kocuria spp</i>	<i>Lactobacillus parakefirii</i>
<i>Kocuria varians</i>	<i>Lactobacillus paraplantarum</i>
<i>Kosakonia cowanii</i>	<i>Lactobacillus pentosus</i>
<i>Kutzneria spp</i>	<i>Lactobacillus perolens</i>
<i>Kytococcus sedentarius</i>	<i>Lactobacillus plantarum</i>
<i>Lactobacillus acidophilus</i>	<i>Lactobacillus reuteri</i>
<i>Lactobacillus alimentarius</i>	<i>Lactobacillus rhamnosus</i>
<i>Lactobacillus animalis</i>	<i>Lactobacillus rossiae</i>
<i>Lactobacillus backii</i>	<i>Lactobacillus sakei</i>

<i>Lactobacillus salivarius</i>	<i>Lelliottia amnigena</i>
<i>Lactobacillus</i> spp	<i>Leptothrix mobilis</i>
<i>Lactobacillus vaginalis</i>	<i>Leptotrichia buccalis</i>
<i>Lactococcus garvieae</i>	<i>Leuconostoc carnosum</i>
<i>Lactococcus lactis</i> ssp <i>cremoris</i>	<i>Leuconostoc citreum</i>
<i>Lactococcus lactis</i> ssp <i>hordniae</i>	<i>Leuconostoc fallax</i>
<i>Lactococcus lactis</i> ssp <i>lactis</i>	<i>Leuconostoc lactis</i>
<i>Lactococcus plantarum</i>	<i>Leuconostoc mesenteroides</i>
<i>Lactococcus raffinolactis</i>	<i>Leuconostoc mesenteroides</i> ssp <i>cremoris</i>
<i>Lamprocystis purpurea</i>	<i>Leuconostoc mesenteroides</i> ssp <i>dextranicum</i>
<i>Leclercia adecarboxylata</i>	<i>Leuconostoc mesenteroides</i> ssp <i>mesenteroides</i>
<i>Leclercia</i> spp	<i>Leuconostoc pseudomesenteroides</i>
<i>Legionella anisa</i>	<i>Leuconostoc</i> spp
<i>Legionella birminghamensis</i>	<i>Listeria grayi</i>
<i>Legionella bozemanae</i>	<i>Listeria innocua</i>
<i>Legionella cherrii</i>	<i>Listeria ivanovii</i>
<i>Legionella cincinnatiensis</i>	<i>Listeria ivanovii</i> ssp <i>ivanovii</i>
<i>Legionella erythra</i>	<i>Listeria ivanovii</i> ssp <i>londoniensis</i>
<i>Legionella feeleeii</i>	<i>Listeria monocytogenes</i>
<i>Legionella hackeliae</i>	<i>Listeria seeligeri</i>
<i>Legionella israelensis</i>	<i>Listeria</i> spp
<i>Legionella jamestowniensis</i>	<i>Listeria welshimeri</i>
<i>Legionella jordani</i>	<i>Lysinibacillus fusiformis</i>
<i>Legionella lansingensis</i>	<i>Lysinibacillus sphaericus</i>
<i>Legionella londiniensis</i>	<i>Mannheimia haemolytica</i>
<i>Legionella longbeachae</i>	<i>Megasphaera cerevisiae</i>
<i>Legionella oakridgensis</i>	<i>Megasphaera sueciensis</i>
<i>Legionella parisiensis</i>	<i>Methylobacterium chloromethanicum</i>
<i>Legionella pneumophila</i>	<i>Methylobacterium extorquens</i>
<i>Legionella pneumophila</i> ssp <i>fraseri</i>	<i>Methylobacterium fujiisawaense</i>
<i>Legionella pneumophila</i> ssp <i>pascullei</i>	<i>Methylobacterium mesophilicum</i>
<i>Legionella pneumophila</i> ssp <i>pneumophila</i>	<i>Methylobacterium radiotolerans</i>
<i>Legionella rubrilucens</i>	<i>Methylobacterium</i> spp
<i>Legionella sainthelensi</i>	<i>Microbacterium aerolatum</i>
<i>Legionella steigerwaltii</i>	<i>Microbacterium arborescens</i>
<i>Legionella taurinensis</i>	<i>Microbacterium aurum</i>
<i>Legionella wadsworthii</i>	<i>Microbacterium dextranolyticum</i>
<i>Leifsonia aquatica</i>	<i>Microbacterium flavescens</i>
<i>Leifsonia xyli</i>	

<i>Microbacterium hydrocarbonoxydans</i>	<i>Mycobacterium brisbanense</i>
<i>Microbacterium keratanolyticum</i>	<i>Mycobacterium celatum</i>
<i>Microbacterium ketosireducens</i>	<i>Mycobacterium chelonae</i>
<i>Microbacterium koreense</i>	<i>Mycobacterium cosmeticum</i>
<i>Microbacterium laevaniformans</i>	<i>Mycobacterium diernhoferi</i>
<i>Microbacterium luteolum</i>	<i>Mycobacterium duvalii</i>
<i>Microbacterium natoriense</i>	<i>Mycobacterium farcinogenes</i>
<i>Microbacterium oleivorans</i>	<i>Mycobacterium flavescens</i>
<i>Microbacterium paraoxydans</i>	<i>Mycobacterium fortuitum</i>
<i>Microbacterium phyllosphaerae</i>	<i>Mycobacterium gastri</i>
<i>Microbacterium schleiferi</i>	<i>Mycobacterium genavense</i>
<i>Microbacterium spp</i>	<i>Mycobacterium gilvum</i>
<i>Microbacterium testaceum</i>	<i>Mycobacterium goodii</i>
<i>Microbacterium thalassium</i>	<i>Mycobacterium gordonae</i>
<i>Micrococcaceae</i>	<i>Mycobacterium haemophilum</i>
<i>Micrococcus luteus</i>	<i>Mycobacterium heckeshornense</i>
<i>Micrococcus spp</i>	<i>Mycobacterium immunogenum</i>
<i>Mitsuaria chitosanitabida</i>	<i>Mycobacterium intracellulare</i>
<i>Mobiluncus curtisii</i>	<i>Mycobacterium kansasii</i>
<i>Mobiluncus mulieris</i>	<i>Mycobacterium kubicae</i>
<i>Moellerella wisconsensis</i>	<i>Mycobacterium kumamotoense</i>
<i>Moraxella atlantae</i>	<i>Mycobacterium lentiflavum</i>
<i>Moraxella catarrhalis</i>	<i>Mycobacterium mageritense</i>
<i>Moraxella caviae</i>	<i>Mycobacterium malmoense</i>
<i>Moraxella lacunata</i>	<i>Mycobacterium marinum</i>
<i>Moraxella nonliquefaciens</i>	<i>Mycobacterium moriokaense</i>
<i>Moraxella osloensis</i>	<i>Mycobacterium mucogenicum</i>
<i>Moraxella spp</i>	<i>Mycobacterium nebraskense</i>
<i>Morganella morganii</i>	<i>Mycobacterium neoaurum</i>
<i>Morganella morganii ssp morganii</i>	<i>Mycobacterium nonchromogenicum</i>
<i>Morganella morganii ssp sibonii</i>	<i>Mycobacterium obuense</i>
<i>Mycobacterium abscessus</i>	<i>Mycobacterium paraffinicum</i>
<i>Mycobacterium africanum</i>	<i>Mycobacterium peregrinum</i>
<i>Mycobacterium agri</i>	<i>Mycobacterium phlei</i>
<i>Mycobacterium arupense</i>	<i>Mycobacterium porcinum</i>
<i>Mycobacterium asiaticum</i>	<i>Mycobacterium rhodesiae</i>
<i>Mycobacterium aurum</i>	<i>Mycobacterium scrofulaceum</i>
<i>Mycobacterium avium</i>	<i>Mycobacterium senegalense</i>
<i>Mycobacterium bovis</i>	<i>Mycobacterium sensuense</i>

<i>Mycobacterium sherrisii</i>	<i>Mycoplasma verecundum</i>
<i>Mycobacterium shimoidei</i>	<i>Myroides odoratimimus</i>
<i>Mycobacterium simiae</i>	<i>Myroides odoratus</i>
<i>Mycobacterium smegmatis</i>	<i>Myroides</i> spp
<i>Mycobacterium</i> spp	<i>Neisseria animaloris</i>
<i>Mycobacterium szulgai</i>	<i>Neisseria canis</i>
<i>Mycobacterium terrae</i>	<i>Neisseria cinerea</i>
<i>Mycobacterium thermoresistibile</i>	<i>Neisseria elongata</i>
<i>Mycobacterium triplex</i>	<i>Neisseria flava</i>
<i>Mycobacterium triviale</i>	<i>Neisseria flavescens</i>
<i>Mycobacterium tuberculosis</i>	<i>Neisseria gonorrhoeae</i>
<i>Mycobacterium vaccae</i>	<i>Neisseria lactamica</i>
<i>Mycobacterium xenopi</i>	<i>Neisseria meningitidis</i>
<i>Mycoplasma alkalescens</i>	<i>Neisseria mucosa</i>
<i>Mycoplasma alvi</i>	<i>Neisseria perflava</i>
<i>Mycoplasma arginini</i>	<i>Neisseria polysaccharea</i>
<i>Mycoplasma bovigenitalium</i>	<i>Neisseria sicca</i>
<i>Mycoplasma bovoculi</i>	<i>Neisseria</i> spp
<i>Mycoplasma californicum</i>	<i>Neisseria subflava</i>
<i>Mycoplasma canadense</i>	<i>Neisseria wadsworthii</i>
<i>Mycoplasma conjunctivae</i>	<i>Neisseria weaveri</i>
<i>Mycoplasma fermentans</i>	<i>Neisseria zoodegmatidis</i>
<i>Mycoplasma gallisepticum</i>	<i>Nocardia abscessus</i>
<i>Mycoplasma genitalium</i>	<i>Nocardia africana</i>
<i>Mycoplasma hominis</i>	<i>Nocardia asiatica</i>
<i>Mycoplasma hyopneumoniae</i>	<i>Nocardia asteroides</i>
<i>Mycoplasma hyorhinis</i>	<i>Nocardia beijingensis</i>
<i>Mycoplasma hyosynoviae</i>	<i>Nocardia brasiliensis</i>
<i>Mycoplasma iowae</i>	<i>Nocardia brevicatena</i>
<i>Mycoplasma meleagridis</i>	<i>Nocardia carnea</i>
<i>Mycoplasma orale</i>	<i>Nocardia cyriacigeorgica</i>
<i>Mycoplasma ovipneumoniae</i>	<i>Nocardia farcinica</i>
<i>Mycoplasma penetrans</i>	<i>Nocardia ignorata</i>
<i>Mycoplasma pirum</i>	<i>Nocardia neocaledoniensis</i>
<i>Mycoplasma pneumoniae</i>	<i>Nocardia nova</i>
<i>Mycoplasma putrefaciens</i>	<i>Nocardia otitidiscaviarum</i>
<i>Mycoplasma salivarium</i>	<i>Nocardia paucivorans</i>
<i>Mycoplasma</i> spp	<i>Nocardia pneumoniae</i>
<i>Mycoplasma synoviae</i>	<i>Nocardia pseudobrasiliensis</i>

<i>Nocardia</i> spp	<i>Paenibacillus jamilae</i>
<i>Nocardia transvalensis</i>	<i>Paenibacillus lactis</i>
<i>Nocardia veterana</i>	<i>Paenibacillus larvae</i>
<i>Nocardia wallacei</i>	<i>Paenibacillus lautus</i>
<i>Novosphingobium aromaticivorans</i>	<i>Paenibacillus macerans</i>
<i>Oceanobacillus caeni</i>	<i>Paenibacillus naphthalenovorans</i>
<i>Ochrobactrum anthropi</i>	<i>Paenibacillus pabuli</i>
<i>Ochrobactrum ciceri</i>	<i>Paenibacillus pasadenensis</i>
<i>Ochrobactrum cytisi</i>	<i>Paenibacillus peoriae</i>
<i>Ochrobactrum gallinifaecis</i>	<i>Paenibacillus polymyxa</i>
<i>Ochrobactrum grignonense</i>	<i>Paenibacillus provencensis</i>
<i>Ochrobactrum haematophilum</i>	<i>Paenibacillus pueri</i>
<i>Ochrobactrum intermedium</i>	<i>Paenibacillus</i> spp
<i>Ochrobactrum lupini</i>	<i>Paenibacillus thiaminolyticus</i>
<i>Ochrobactrum oryzae</i>	<i>Paenibacillus turicensis</i>
<i>Ochrobactrum pseudintermedium</i>	<i>Paenibacillus validus</i>
<i>Ochrobactrum pseudogrignonense</i>	<i>Paeniclostridium sordellii</i>
<i>Ochrobactrum rhizosphaerae</i>	<i>Paeniglutamicibacter gangotriensis</i>
<i>Ochrobactrum</i> spp	<i>Paeniglutamicibacter kerguelensis</i>
<i>Ochrobactrum thiophenivorans</i>	<i>Paeniglutamicibacter psychrophenicus</i>
<i>Ochrobactrum tritici</i>	<i>Paeniglutamicibacter sulfureus</i>
<i>Odoribacter splanchnicus</i>	<i>Pandoraea apista</i>
<i>Oerskovia turbata</i>	<i>Pandoraea norimbergensis</i>
<i>Oligella ureolytica</i>	<i>Pandoraea pnomenusa</i>
<i>Oligella urethralis</i>	<i>Pandoraea pulmonicola</i>
<i>Ornithobacterium rhinotracheale</i>	<i>Pandoraea sputorum</i>
<i>Paenarthrobacter aurescens</i>	<i>Pantoea agglomerans</i>
<i>Paenarthrobacter histidinolorans</i>	<i>Pantoea dispersa</i>
<i>Paenarthrobacter ilicis</i>	<i>Pantoea</i> spp
<i>Paenarthrobacter nicotinovorans</i>	<i>Parabacteroides distasonis</i>
<i>Paenarthrobacter ureafaciens</i>	<i>Parabacteroides goldsteinii</i>
<i>Paenibacillus agarexedens</i>	<i>Parabacteroides johnsonii</i>
<i>Paenibacillus alvei</i>	<i>Parabacteroides merdae</i>
<i>Paenibacillus amylolyticus</i>	<i>Paraburkholderia fungorum</i>
<i>Paenibacillus apiarius</i>	<i>Paraclostridium bifermentans</i>
<i>Paenibacillus barcinonensis</i>	<i>Paracoccus denitrificans</i>
<i>Paenibacillus barengoltzii</i>	<i>Paracoccus</i> spp
<i>Paenibacillus durus</i>	<i>Paracoccus versutus</i>
<i>Paenibacillus glucanolyticus</i>	<i>Paracoccus yeei</i>

<i>Paraeggerthella hongkongensis</i>	<i>Prevotella buccalis</i>
<i>Parvimonas micra</i>	<i>Prevotella denticola</i>
<i>Pasteurella aerogenes</i>	<i>Prevotella disiens</i>
<i>Pasteurella canis</i>	<i>Prevotella intermedia</i>
<i>Pasteurella multocida</i>	<i>Prevotella loescheii</i>
<i>Pasteurella pneumotropica</i>	<i>Prevotella melaninogenica</i>
<i>Pectobacterium carotovorum</i> ssp <i>carotovorum</i>	<i>Prevotella multiformis</i>
<i>Pediococcus acidilactici</i>	<i>Prevotella nanceiencis</i>
<i>Pediococcus claussenii</i>	<i>Prevotella nigrescens</i>
<i>Pediococcus damnosus</i>	<i>Prevotella oralis</i>
<i>Pediococcus inopinatus</i>	<i>Prevotella oris</i>
<i>Pediococcus parvulus</i>	<i>Prevotella ruminicola</i>
<i>Pediococcus pentosaceus</i>	<i>Prevotella salivae</i>
<i>Pedobacter</i> spp	<i>Prevotella</i> spp
<i>Pedomicrobium australicum</i>	<i>Prevotella timonensis</i>
<i>Pelistega europaea</i>	<i>Prevotella veroralis</i>
<i>Peptococcus niger</i>	<i>Propionibacterium freudenreichii</i>
<i>Peptoniphilus asaccharolyticus</i>	<i>Propionibacterium freudenreichii</i> ssp
<i>Peptoniphilus gorbachii</i>	<i>shermanii</i>
<i>Peptoniphilus harei</i>	<i>Propionibacterium</i> spp
<i>Peptoniphilus indolicus</i>	<i>Proteus mirabilis</i>
<i>Peptoniphilus ivorii</i>	<i>Proteus penneri</i>
<i>Peptoniphilus lacrimalis</i>	<i>Proteus vulgaris</i>
<i>Peptoniphilus olsenii</i>	<i>Proteus vulgaris/penneri</i>
<i>Peptoniphilus</i> spp	<i>Providencia alcalifaciens</i>
<i>Peptostreptococcus anaerobius</i>	<i>Providencia rettgeri</i>
<i>Peptostreptococcus</i> spp	<i>Providencia rustigianii</i>
<i>Photobacterium damsela</i>	<i>Providencia</i> spp
<i>Plesiomonas shigelloides</i>	<i>Providencia stuartii</i>
<i>Pluralibacter gergoviae</i>	<i>Pseudarthrobacter chlorophenolicus</i>
<i>Porphyromonas asaccharolytica</i>	<i>Pseudarthrobacter oxydans</i>
<i>Porphyromonas gingivalis</i>	↳ Old name: <i>Arthrobacter oxydans</i>
<i>Porphyromonas</i> spp	<i>Pseudarthrobacter polychromogenes</i>
<i>Porphyromonas uenonis</i>	<i>Pseudarthrobacter scleromae</i>
<i>Pragia fontium</i>	<i>Pseudarthrobacter sulfonivorans</i>
<i>Prevotella baroniae</i>	<i>Pseudochrobactrum asaccharolyticum</i>
<i>Prevotella bergensis</i>	<i>Pseudochrobactrum kiredjaniae</i>
<i>Prevotella bivia</i>	<i>Pseudochrobactrum lubricantis</i>
<i>Prevotella buccae</i>	<i>Pseudochrobactrum saccharolyticum</i>

Pseudoflavonifractor capillosus
Pseudoglutamicibacter albus
Pseudoglutamicibacter cumminsii
Pseudomonas aeruginosa
Pseudomonas alcaligenes
Pseudomonas anguilliseptica
Pseudomonas brassicacearum
Pseudomonas caeni
Pseudomonas chlororaphis
Pseudomonas chlororaphis ssp aureofaciens
Pseudomonas chlororaphis ssp chlororaphis
Pseudomonas citronellolis
Pseudomonas cuatrocienegasensis
Pseudomonas delhiensis
Pseudomonas extremorientalis
Pseudomonas fluorescens
Pseudomonas fragi
Pseudomonas fulva
Pseudomonas graminis
Pseudomonas grimontii
Pseudomonas knackmussii
Pseudomonas lini
Pseudomonas lutea
Pseudomonas luteola
Pseudomonas mendocina
Pseudomonas migulae
Pseudomonas monteillii
Pseudomonas mosselii
Pseudomonas mucidolens
Pseudomonas nitroreducens
Pseudomonas oleovorans
Pseudomonas oryzihabitans
Pseudomonas peli
Pseudomonas pictorum
Pseudomonas protegens
Pseudomonas putida
Pseudomonas rhizosphaerae
Pseudomonas rhodesiae

Pseudomonas salomonii
Pseudomonas spp
Pseudomonas straminea
Pseudomonas stutzeri
Pseudomonas synxantha
Pseudomonas syringae
Pseudomonas syringae pv. delphinii
Pseudomonas thermotolerans
Pseudomonas thivervalensis
Pseudomonas tolaasii
Pseudomonas umsongensis
Pseudomonas veronii
Pseudomonas viridiflava
Pseudopropionibacterium propionicum
↳ Old name: *Propionibacterium propionicum*
Pseudoxanthomonas broegbernensis
Pseudoxanthomonas daejeonensis
Pseudoxanthomonas dokdonensis
Pseudoxanthomonas japonensis
Pseudoxanthomonas kalamensis
Pseudoxanthomonas kaohsiungensis
Pseudoxanthomonas koreensis
Pseudoxanthomonas mexicana
Pseudoxanthomonas spadix
Pseudoxanthomonas taiwanensis
Psychrobacter phenylpyruvicus
Psychrobacter spp
Rahnella aquatilis
Ralstonia insidiosa
Ralstonia mannitolilytica
Ralstonia pickettii
Ralstonia spp
Raoultella ornithinolytica
Raoultella planticola
Raoultella spp
Raoultella terrigena
Rhizobium radiobacter
Rhizobium spp
↳ Old name: *Agrobacterium spp*

<i>Rhizorhapis suberifaciens</i>	<i>Siccibacter turicensis</i>
<i>Rhodobacter sphaeroides</i>	<i>Sinomonas atrocyanea</i>
<i>Rhodococcus erythropolis</i>	<i>Skermanella</i> spp
<i>Rhodospirillum rubrum</i>	<i>Solibacillus silvestris</i>
<i>Riemerella anatipestifer</i>	<i>Sphaerotilus</i> spp
<i>Riemerella columbina</i>	<i>Sphingobacterium daejeonense</i>
<i>Robinsoniella peoriensis</i>	<i>Sphingobacterium mizutaii</i>
<i>Rothia aeria</i>	<i>Sphingobacterium multivorum</i>
<i>Rothia amarae</i>	<i>Sphingobacterium spiritivorum</i>
<i>Rothia dentocariosa</i>	<i>Sphingobacterium thalpophilum</i>
<i>Rothia mucilaginoso</i>	<i>Sphingobium chlorophenicum</i>
<i>Rothia nasimurium</i>	<i>Sphingobium xenophagum</i>
<i>Rothia</i> spp	<i>Sphingobium yanoikuyae</i>
<i>Rothia terrae</i>	<i>Sphingomonas adhaesiva</i>
<i>Ruminococcus gnavus</i>	<i>Sphingomonas echinoides</i>
<i>Salmonella bongori</i>	<i>Sphingomonas leidyi</i>
<i>Salmonella enterica</i> ssp <i>arizonae</i>	<i>Sphingomonas melonis</i>
<i>Salmonella enterica</i> ssp <i>diarizonae</i>	<i>Sphingomonas parapaucimobilis</i>
<i>Salmonella enterica</i> ssp <i>enterica</i>	<i>Sphingomonas paucimobilis</i>
<i>Salmonella enterica</i> ssp <i>houtenae</i>	<i>Sphingomonas</i> spp
<i>Salmonella enterica</i> ssp <i>indica</i>	<i>Sphingomonas trueperi</i>
<i>Salmonella enterica</i> ssp <i>salamae</i>	<i>Sphingopyxis terrae</i>
<i>Salmonella</i> spp	<i>Staphylococcus arlettae</i>
<i>Serratia ficaria</i>	<i>Staphylococcus aureus</i>
<i>Serratia fonticola</i>	<i>Staphylococcus aureus</i> ssp <i>aureus</i>
<i>Serratia grimesii</i>	<i>Staphylococcus auricularis</i>
<i>Serratia liquefaciens</i>	<i>Staphylococcus capitis</i>
<i>Serratia marcescens</i>	<i>Staphylococcus capitis</i> ssp <i>capitis</i>
<i>Serratia odorifera</i>	<i>Staphylococcus capitis</i> ssp <i>urealyticus</i>
<i>Serratia plymuthica</i>	<i>Staphylococcus caprae</i>
<i>Serratia proteamaculans</i>	<i>Staphylococcus carnosus</i> ssp <i>carnosus</i>
<i>Serratia rubidaea</i>	<i>Staphylococcus carnosus</i> ssp <i>utilis</i>
<i>Shewanella putrefaciens</i>	<i>Staphylococcus chromogenes</i>
<i>Shigella boydii</i>	<i>Staphylococcus cohnii</i> ssp <i>cohnii</i>
<i>Shigella dysenteriae</i>	<i>Staphylococcus cohnii</i> ssp <i>urealyticus</i>
<i>Shigella flexneri</i>	<i>Staphylococcus delphini</i>
<i>Shigella sonnei</i>	<i>Staphylococcus epidermidis</i>
<i>Shigella</i> spp	<i>Staphylococcus equorum</i>
<i>Shimwellia blattae</i>	<i>Staphylococcus equorum</i> ssp <i>equorum</i>

<i>Staphylococcus equorum</i> ssp <i>linens</i>	<i>Streptococcus anginosus/constellatus</i>
<i>Staphylococcus gallinarum</i>	<i>Streptococcus australis</i>
<i>Staphylococcus haemolyticus</i>	<i>Streptococcus canis</i>
<i>Staphylococcus hominis</i>	<i>Streptococcus constellatus</i>
<i>Staphylococcus hominis</i> ssp <i>hominis</i>	<i>Streptococcus constellatus</i> ssp <i>constellatus</i>
<i>Staphylococcus hyicus</i>	<i>Streptococcus constellatus</i> ssp <i>pharyngis</i>
<i>Staphylococcus intermedius</i>	<i>Streptococcus cristatus</i>
<i>Staphylococcus kloosii</i>	<i>Streptococcus didelphis</i>
<i>Staphylococcus lentus</i>	<i>Streptococcus downei</i>
<i>Staphylococcus lugdunensis</i>	<i>Streptococcus dysgalactiae</i>
<i>Staphylococcus lutrae</i>	<i>Streptococcus dysgalactiae</i> ssp <i>dysgalactiae</i>
<i>Staphylococcus pseudintermedius</i>	<i>Streptococcus dysgalactiae</i> ssp <i>equisimilis</i>
<i>Staphylococcus saccharolyticus</i>	<i>Streptococcus entericus</i>
<i>Staphylococcus saprophyticus</i>	<i>Streptococcus equi</i> ssp <i>equi</i>
<i>Staphylococcus saprophyticus</i> ssp <i>saprophyticus</i>	<i>Streptococcus equi</i> ssp <i>ruminatorum</i>
<i>Staphylococcus schleiferi</i>	<i>Streptococcus equi</i> ssp <i>zooepidemicus</i>
<i>Staphylococcus schleiferi</i> ssp <i>coagulans</i>	<i>Streptococcus equinus</i>
<i>Staphylococcus schleiferi</i> ssp <i>schleiferi</i>	<i>Streptococcus gallinaceus</i>
<i>Staphylococcus sciuri</i>	<i>Streptococcus gallolyticus</i>
<i>Staphylococcus sciuri</i> ssp <i>carnaticus</i>	<i>Streptococcus gallolyticus</i> ssp <i>gallolyticus</i>
<i>Staphylococcus sciuri</i> ssp <i>rodentium</i>	<i>Streptococcus gallolyticus</i> ssp <i>macedonicus</i>
<i>Staphylococcus sciuri</i> ssp <i>sciuri</i>	<i>Streptococcus gallolyticus</i> ssp <i>pasteurianus</i>
<i>Staphylococcus simulans</i>	<i>Streptococcus gordonii</i>
<i>Staphylococcus vitulinus</i>	<i>Streptococcus hyointestinalis</i>
<i>Staphylococcus warneri</i>	<i>Streptococcus hyovaginalis</i>
<i>Staphylococcus xylosum</i>	<i>Streptococcus infantarius</i> ssp <i>coli</i>
<i>Stenotrophomonas acidaminiphila</i>	<i>Streptococcus infantarius</i> ssp <i>infantarius</i>
<i>Stenotrophomonas chelatiphaga</i>	<i>Streptococcus intermedius</i>
<i>Stenotrophomonas humi</i>	<i>Streptococcus lutetiensis</i>
<i>Stenotrophomonas koreensis</i>	<i>Streptococcus marimammalium</i>
<i>Stenotrophomonas maltophilia</i>	<i>Streptococcus massiliensis</i>
<i>Stenotrophomonas nitritireducens</i>	<i>Streptococcus mitis</i>
<i>Stenotrophomonas rhizophila</i>	<i>Streptococcus mutans</i>
<i>Stenotrophomonas</i> spp	<i>Streptococcus oligofermentans</i>
<i>Stenotrophomonas terrae</i>	<i>Streptococcus oralis</i>
<i>Streptococcus agalactiae</i>	<i>Streptococcus orisratti</i>
<i>Streptococcus alactolyticus</i>	<i>Streptococcus ovis</i>
<i>Streptococcus anginosus</i>	<i>Streptococcus parasanguinis</i>
	<i>Streptococcus parauberis</i>

<i>Streptococcus peroris</i>	<i>Tsukamurella tyrosinosolvens</i>
<i>Streptococcus phocae</i>	<i>Turicella otitidis</i>
<i>Streptococcus pluranimalium</i>	<i>Vagococcus fluvialis</i>
<i>Streptococcus pneumoniae</i>	<i>Variovorax paradoxus</i>
<i>Streptococcus porcinus</i>	<i>Veillonella atypica</i>
<i>Streptococcus pseudopneumoniae</i>	<i>Veillonella dispar</i>
<i>Streptococcus pyogenes</i>	<i>Veillonella parvula</i>
<i>Streptococcus salivarius</i>	<i>Veillonella spp</i>
<i>Streptococcus salivarius ssp thermophilus</i>	<i>Vibrio alginolyticus</i>
<i>Streptococcus sanguinis</i>	<i>Vibrio anguillarum</i>
<i>Streptococcus sinensis</i>	<i>Vibrio campbellii</i>
<i>Streptococcus sobrinus</i>	<i>Vibrio cholerae</i>
<i>Streptococcus spp</i>	<i>Vibrio cincinnatiensis</i>
<i>Streptococcus suis</i>	<i>Vibrio fluvialis</i>
<i>Streptococcus thoralensis</i>	<i>Vibrio furnissii</i>
<i>Streptococcus uberis</i>	<i>Vibrio harveyi</i>
<i>Streptococcus vestibularis</i>	<i>Vibrio metschnikovii</i>
<i>Streptomyces albobaculi</i>	<i>Vibrio mimicus</i>
<i>Streptomyces fradiae</i>	<i>Vibrio natriegens</i>
<i>Streptomyces griseus</i>	<i>Vibrio navarrensis</i>
<i>Streptomyces griseus ssp griseus</i>	<i>Vibrio orientalis</i>
<i>Streptomyces spp</i>	<i>Vibrio parahaemolyticus</i>
<i>Suttonella indologenes</i>	<i>Vibrio proteolyticus</i>
<i>Tatlockia maceachernii</i>	<i>Vibrio spp</i>
<i>Tatlockia micdadei</i>	<i>Vibrio vulnificus</i>
<i>Tatumella ptyseos</i>	<i>Virgibacillus pantothenicus</i>
<i>Taylorella asinigenitalis</i>	<i>Virgibacillus proomii</i>
<i>Taylorella equigenitalis</i>	<i>Weeksella virosa</i>
<i>Terrabacter spp</i>	<i>Weissella confusa</i>
<i>Terrisporobacter glycolicum</i>	<i>Weissella viridescens</i>
<i>Tetragenococcus halophilus</i>	<i>Xenorhabdus nematophila</i>
<i>Thiocystis spp</i>	<i>Xenorhabdus spp</i>
<i>Trueperella bernardiae</i>	<i>Yersinia aldovae</i>
<i>Trueperella bialowiezense</i>	<i>Yersinia enterocolitica</i>
<i>Trueperella bonasi</i>	<i>Yersinia frederiksenii</i>
<i>Trueperella pyogenes</i>	<i>Yersinia intermedia</i>
<i>Tsukamurella paurometabola</i>	<i>Yersinia kristensenii</i>
<i>Tsukamurella pulmonis</i>	<i>Yersinia mollaretii</i>
<i>Tsukamurella spp</i>	<i>Yersinia pestis</i>

Yersinia pseudotuberculosis

Yersinia ruckeri

Yersinia spp

Yokenella regensburgei

List of SuperSpectra - Algae, Mycota and Yeasts

<i>Acremonium murorum</i>	<i>Aspergillus thermomutatus</i>
<i>Acremonium persicinum</i>	<i>Aspergillus thermomutatus/fischeri</i>
<i>Acremonium polychromum</i>	<i>Aspergillus tubingensis</i>
<i>Acremonium sclerotigenum</i>	<i>Aspergillus unguis</i>
<i>Actinomucor elegans</i>	<i>Aspergillus versicolor</i>
<i>Alternaria alternata</i>	<i>Aureobasidium pullulans</i>
<i>Alternaria infectoria</i>	<i>Aureobasidium pullulans</i> var <i>pullulans</i>
<i>Alternaria</i> spp	<i>Beauveria bassiana</i>
<i>Arthroderma benhamiae</i>	<i>Bipolaris cynodontis</i>
<i>Arthroderma fulvum</i>	<i>Bjerkandera adusta</i>
<i>Arthrographis kalrae</i>	<i>Blastobotrys adenivorans</i>
<i>Aspergillus aculeatus</i>	<i>Blastomyces dermatitidis</i>
<i>Aspergillus alabamensis</i>	<i>Brettanomyces anomalus</i>
<i>Aspergillus allahabadii</i>	<i>Brettanomyces bruxellensis</i>
<i>Aspergillus brasiliensis</i>	↳ Old name: <i>Dekkera bruxellensis</i>
<i>Aspergillus calidoustus</i>	<i>Brettanomyces naardenensis</i>
<i>Aspergillus candidus</i>	<i>Candida aaseri</i>
<i>Aspergillus flavipes</i>	<i>Candida africana/albicans</i>
<i>Aspergillus flavus/oryzae</i>	<i>Candida africana/albicans/dublinskiensis</i>
<i>Aspergillus flavus/tamarii</i>	<i>Candida albicans</i>
<i>Aspergillus fumigatiaffinis</i>	<i>Candida auris</i>
<i>Aspergillus fumigatus</i>	<i>Candida blankii</i>
<i>Aspergillus glaucus</i>	<i>Candida boidinii</i>
<i>Aspergillus lentulus</i>	<i>Candida bracarenensis</i>
<i>Aspergillus nidulans</i>	<i>Candida catenulata</i>
<i>Aspergillus niger</i> complex	<i>Candida ciferrii</i>
<i>Aspergillus niger/lacticoffeatus</i>	<i>Candida colliculosa</i>
<i>Aspergillus ochraceus</i>	<i>Candida cylindracea</i>
<i>Aspergillus ochraceus/westerdijkiae</i>	<i>Candida dattila</i>
<i>Aspergillus parasiticus</i>	<i>Candida dubliniensis</i>
<i>Aspergillus restrictus</i>	<i>Candida duobushaemulonii</i>
<i>Aspergillus sclerotioniger</i>	<i>Candida fabianii</i>
<i>Aspergillus</i> spp	<i>Candida famata</i>
<i>Aspergillus sydowii</i>	<i>Candida freyschussii</i>
<i>Aspergillus tamarii</i>	<i>Candida glabrata</i>
<i>Aspergillus terreus</i> complex	<i>Candida globosa</i>
<i>Aspergillus tetrazonus</i>	<i>Candida guilliermondii</i>

Candida haemulonii*Candida holmii**Candida inconspicua**Candida intermedia****Candida ishiwadae****Candida kefyri**Candida krusei**Candida lambica**Candida lipolytica**Candida lusitanae**Candida magnoliae**Candida melibiosica**Candida metapsilosis**Candida nivariensis**Candida norvegensis**Candida norvegica**Candida orthopsilosis****Candida palmioleaphila****Candida parapsilosis**Candida pararugosa**Candida pelliculosa**Candida pulcherrima****Candida quercitrusa****Candida rugosa**Candida sake**Candida silvicola****Candida slooffiae****Candida sorbosa**Candida sphaerica**Candida spp**Candida steatolytica**Candida thermophila**Candida tropicalis**Candida utilis**Candida valida**Candida variabilis**Candida viswanathii**Candida zeylanoides****Cephalophora irregularis******Cephalotheca foveolata******Cephalotheca purpurea****Chaetomium globosum**Chaetomium spp**Chrysosporium indicum****Cladophialophora bantiana******Cladophialophora mycetomatis****Cladosporium cladosporioides**Cladosporium sphaerospermum**Cladosporium spp****Coccidioides posadasii******Coccidioides******Coprinellus radians******Corioloropsis polyzona******Cryptococcus albidus******Cryptococcus aureus****Cryptococcus curvatus**Cryptococcus gattii**Cryptococcus laurentii**Cryptococcus neoformans**Cryptococcus terreus**Cryptococcus uniguttulatus**Cunninghamella bertholletiae****Cunninghamella elegans******Curvularia hawaiiensis******Curvularia lunata******Curvularia spicifera****Cyberlindnera saturnus**Debaryomyces spp****Diatrype stigma******Duddingtonia flagrans****Epidermophyton floccosum****Eutypella scoparia****Exophiala dermatitidis****Exophiala phaeomuriformis complex******Exophiala spinifera****Exophiala spp****Exophiala xenobiotica******Exserohilum rostratum***

Fonsecaea monophora	<i>Microsporium gypseum</i>
Fusarium chlamydosporum	<i>Microsporium persicolor</i>
<i>Fusarium dimerum</i>	<i>Microsporium praecox</i>
<i>Fusarium oxysporum</i>	<i>Microsporium racemosum</i>
<i>Fusarium oxysporum/proliferatum</i>	<i>Microsporium spp</i>
<i>Fusarium proliferatum</i>	<i>Millerozyma farinosa</i>
<i>Fusarium scirpi</i>	<i>Monascus purpureus</i>
<i>Fusarium solani</i>	<i>Mucor circinelloides</i>
<i>Fusarium spp</i>	<i>Mucor irregularis</i>
<i>Fusarium thapsinum</i>	<i>Mucor lanceolatus</i>
<i>Fusarium tritinctum</i>	<i>Mucor plumbeus</i>
<i>Fusarium verticillioides</i>	<i>Mucor racemosus</i>
<i>Geotrichum candidum/klebahnii</i>	<i>Mucor spp</i>
<i>Geotrichum fermentans</i>	<i>Mucor velutinosus</i>
<i>Geotrichum spp</i>	<i>Mycoleptodiscus indicus</i>
<i>Histoplasma capsulatum</i>	<i>Mycotypha microspora</i>
<i>Irpex lacteus</i>	<i>Myrmecridium schulzeri</i>
<i>Kloeckera apiculata</i>	<i>Myrothecium spp</i>
<i>Kloeckera apis</i>	<i>Neosartorya fischeri</i>
<i>Kloeckera japonica</i>	<i>Ochroconis humicola</i>
<i>Kloeckera spp</i>	<i>Oxyporus corticola</i>
<i>Kodamaea ohmeri</i>	<i>Paecilomyces formosus</i>
<i>Komagataella pastoris</i>	<i>Paecilomyces fulvus/niveus</i>
<i>Lachancea fermentati</i>	<i>Paecilomyces variotii</i>
<i>Lachancea kluyveri</i>	<i>Penicillium aurantiacum</i>
<i>Lecanicillium spp</i>	<i>Penicillium brevicompactum</i>
<i>Lecythophora fasciculata</i>	<i>Penicillium camemberti</i>
<i>Lecythophora hoffmannii</i>	<i>Penicillium carneum</i>
<i>Lecythophora mutabilis</i>	<i>Penicillium chrysogenum</i>
<i>Lichtheimia corymbifera</i>	<i>Penicillium citrinum</i>
↳ Old name: <i>Absidia corymbifera</i>	<i>Penicillium crustosum</i>
<i>Lodderomyces elongisporus</i>	<i>Penicillium decumbens*</i>
<i>Malassezia globosa</i>	<i>Penicillium expansum</i>
<i>Metarhizium anisopliae</i>	<i>Penicillium funiculosum</i>
<i>Microsporium audouinii</i>	<i>Penicillium glabrum</i>
<i>Microsporium canis</i>	<i>Penicillium griseofulvum</i>
<i>Microsporium cookei</i>	<i>Penicillium italicum</i>
<i>Microsporium ferrugineum</i>	<i>Penicillium janthinellum</i>
<i>Microsporium fulvum</i>	<i>Penicillium oxalicum</i>

* There is a possibility of cross-identification between *Penicillium decumbens* and *Penicillium corylophilum* (not in the database)

*Penicillium purpurogenum****Penicillium resedanum******Penicillium roqueforti****Penicillium rugulosum**Penicillium* spp***Penicillium toxicarium******Penicillium vermiculatum******Peniophora*** spp***Phaeoacremonium fuscum******Phaeoacremonium venezuelense******Phialemonium obovatum******Phialophora richardsiae******Phlebia brevispora******Phlebia*** spp***Phoma herbarum******Phoma pomorum******Phoma sorghina****Pichia cactophila**Pichia* spp*Pleosporaceae**Priceomyces carsonii**Prototheca wickerhamii**Prototheca zopfii**Pseudallescheria boydii****Pseudallescheria minutispora****Purpureocillium lilacinum*↳ Old name: *Paecilomyces lilacinus****Pyrenochaeta corni******Rasamsonia argillacea****Rhizomucor pusillus****Rhizopus arrhizus****Rhizopus microsporus****Rhizopus schipperae****Rhizopus* spp*Rhodotorula glutinis**Rhodotorula minuta**Rhodotorula mucilaginosa**Rhodotorula* spp*Saccharomyces cerevisiae****Saksenaea erythrospora******Saksenaea*** spp*Saprochaete capitata**Saprochaete clavata*↳ Old name: *Geotrichum clavatum****Sarocladium kiliense****Scedosporium apiospermum****Scedosporium prolificans****Schizophyllum commune**Schwanniomyces etchellsii**Schwanniomyces polymorphus**Scopulariopsis brevicaulis****Scopulariopsis cinerea****Scopulariopsis* spp*Sporobolomyces salmonicolor****Sporothrix pallida****Sporothrix schenkii****Stachybotrys chartarum****Syncephalastrum racemosum****Trametes lactinea****Trichoderma asperellum**Trichoderma brevicompactum**Trichoderma ghanense****Trichoderma longibrachiatum****Trichoderma reesei**Trichophyton eboreum**Trichophyton equinum**Trichophyton erinacei**Trichophyton interdigitale**Trichophyton mentagrophytes**Trichophyton rubrum**Trichophyton schoenleinii**Trichophyton* spp*Trichophyton terrestre**Trichophyton tonsurans**Trichophyton verrucosum**Trichophyton violaceum**Trichosporon asahii**Trichosporon asteroides*

Trichosporon cutaneum/mucoides

Trichosporon inkin

Trichosporon mucoides

Trichosporon ovoides

Trichosporon spp

Verticillium leptobactrum

Xenoacremonium recifei

↳ Old name: *Acronium recifei*

Zygosaccharomyces bailii

Zygosaccharomyces bisporus

Zygosaccharomyces rouxii

Zygosaccharomyces spp

List of SuperSpectra - Bacteria Species

*Abiotrophia defectiva**Acetobacter aceti**Achromobacter denitrificans**Achromobacter denitrificans/xylosoxidans**Achromobacter insolitus**Achromobacter insolitus/piechaudii**Achromobacter piechaudii/spanius**Achromobacter* spp*Achromobacter xylosoxidans****Acidipropionibacterium acidipropionici******Acidipropionibacterium jensenii****Acidovorax* spp*Acidovorax temperans**Acinetobacter baumannii****Acinetobacter beijerinckii****Acinetobacter calcoaceticus****Acinetobacter gyllenbergii****Acinetobacter haemolyticus**Acinetobacter johnsonii**Acinetobacter junii**Acinetobacter lwoffii**Acinetobacter nosocomialis**Acinetobacter pittii**Acinetobacter radioresistens**Acinetobacter schindleri****Acinetobacter seifertii****Acinetobacter* spp*Acinetobacter ursingii**Actinobacillus anseriformium*↳ Old name: *Bisgaard Taxa Bisgaard Taxon 26**Actinobacillus equuli* ssp *haemolyticus**Actinobacillus minor**Actinobacillus pleuropneumoniae**Actinobacillus seminis**Actinobacillus* spp*Actinobacillus ureae****Actinobaculum suis******Actinomyces bovis****Actinomyces denticolens**Actinomyces europaeus****Actinomyces gerencseriae****Actinomyces graevenitzii****Actinomyces israelii****Actinomyces meyeri**Actinomyces naeslundii**Actinomyces neuii**Actinomyces neuii* ssp *anitratus****Actinomyces neuii* ssp *neuii****Actinomyces odontolyticus****Actinomyces oris******Actinomyces radingae****Actinomyces* spp*Actinomyces turicensis****Actinomyces urogenitalis****Actinomyces viscosus**Actinotignum schaalii*↳ Old name: *Actinobaculum schaalii**Aeribacillus pallidus**Aerococcus sanguinicola**Aerococcus urinae**Aerococcus viridans**Aeromonas bestiarum**Aeromonas encheleia**Aeromonas enteropelogenes**Aeromonas eucrenophila**Aeromonas hydrophila**Aeromonas media**Aeromonas molluscorum**Aeromonas popoffii**Aeromonas punctata* (*caviae*)*Aeromonas salmonicida**Aeromonas schubertii**Aeromonas sharmana**Aeromonas simiae*

<i>Aeromonas sobria</i>	<i>Bacillus anthracis</i>
<i>Aeromonas</i> spp	<i>Bacillus atrophaeus/subtilis</i>
<i>Aeromonas tecta</i>	<i>Bacillus cereus</i>
<i>Aeromonas veronii</i>	<i>Bacillus cereus</i> group
<i>Aggregatibacter actinomycetemcomitans</i>	<i>Bacillus circulans</i>
<i>Aggregatibacter aphrophilus</i>	<i>Bacillus clausii</i>
<i>Aggregatibacter segnis</i>	<i>Bacillus coagulans</i>
<i>Aggregatibacter</i> spp	<i>Bacillus coagulans/megaterium</i>
Alcaligenaceae	<i>Bacillus cytotoxicus</i>
<i>Alcaligenes faecalis</i>	<i>Bacillus firmus</i>
<i>Alcaligenes</i> spp	<i>Bacillus fordii/fortis</i>
<i>Alicyclobacillus acidocaldarius</i>	<i>Bacillus horneckiae</i>
<i>Alicyclobacillus acidoterrestris</i>	<i>Bacillus idriensis</i>
<i>Alistipes putredinis</i>	<i>Bacillus lentus</i>
<i>Anaerobiospirillum succiniciproducens</i>	<i>Bacillus licheniformis</i>
<i>Anaerococcus hydrogenalis</i>	<i>Bacillus megaterium</i>
<i>Anaerococcus lactolyticus</i>	<i>Bacillus megaterium/coagulans/amyloliquefaciens</i>
<i>Anaerococcus lactolyticus/murdochii</i>	<i>Bacillus mycoides</i>
<i>Anaerococcus murdochii</i>	<i>Bacillus oleronius</i>
<i>Anaerococcus prevotii</i>	<i>Bacillus psychrosaccharolyticus</i>
<i>Anaerococcus</i> spp	<i>Bacillus pumilus</i>
<i>Anaerococcus tetradius</i>	<i>Bacillus simplex</i>
<i>Anaerococcus vaginalis</i>	<i>Bacillus smithii</i>
<i>Aneurinibacillus aneurinilyticus</i>	<i>Bacillus sporothermodurans</i>
<i>Aneurinibacillus</i> spp	<i>Bacillus</i> spp
<i>Aneurinibacillus thermoaerophilus</i>	<i>Bacillus subtilis</i>
<i>Anoxybacillus flavithermus</i>	<i>Bacillus subtilis</i> ssp <i>spizizenii</i>
<i>Arcanobacterium haemolyticum</i>	<i>Bacillus thermoamylovorans</i>
<i>Arcanobacterium</i> spp	<i>Bacillus weihenstephanensis</i>
<i>Arcobacter butzleri</i>	Bacteroidaceae
<i>Arcobacter cryaerophilus</i>	<i>Bacteroides caccae</i>
<i>Arthrobacter agilis</i>	<i>Bacteroides cellulosilyticus</i>
<i>Arthrobacter flavus</i>	<i>Bacteroides dorei/vulgatus</i>
<i>Arthrobacter globiformis</i>	<i>Bacteroides eggerthii</i>
<i>Arthrobacter ruscicus</i>	<i>Bacteroides finegoldii/nordii/salyersiae</i>
<i>Arthrobacter</i> spp	<i>Bacteroides fragilis</i>
<i>Atopobium parvulum</i>	<i>Bacteroides ovatus/xylanisolvens</i>
<i>Avibacterium gallinarum</i>	<i>Bacteroides pyogenes</i>
<i>Bacillus altitudinis</i>	

<i>Bacteroides</i> spp	<i>Brevibacillus laterosporus</i>
<i>Bacteroides stercoris</i>	<i>Brevibacillus parabrevis</i>
<i>Bacteroides thetaiotaomicron</i>	<i>Brevibacillus</i> spp
<i>Bacteroides uniformis</i>	<i>Brevibacillus thermoruber</i>
<i>Bacteroides vulgatus</i>	<i>Brevibacterium</i> spp
<i>Bergeyella</i> spp	<i>Brevundimonas diminuta</i>
<i>Bifidobacterium adolescentis/dentium</i>	<i>Brevundimonas</i> spp
<i>Bifidobacterium bifidum</i>	<i>Brevundimonas vesicularis</i>
<i>Bifidobacterium catenulatum/pseudocatenulatum</i>	<i>Brochothrix thermosphacta</i>
<i>Bifidobacterium dentium</i>	<i>Brucella abortus</i>
<i>Bifidobacterium gallinarum/saeculare</i>	↳ Old name: <i>Brucella melitensis</i> biovar <i>abortus</i>
<i>Bifidobacterium longum</i>	<i>Brucella ceti/pinnipedialis</i>
<i>Bifidobacterium merycicum</i>	<i>Brucella inopinata</i>
<i>Bifidobacterium ruminantium</i>	<i>Brucella microti</i>
<i>Bifidobacterium</i> spp	<i>Brucella neotamae</i>
<i>Bifidobacterium thermacidophilum</i>	↳ Old name: <i>Brucella melitensis</i> biovar <i>neotamae</i>
<i>Bilophila wadsworthia</i>	<i>Brucella ovis</i>
Bisgaard Taxa Bisgaard Taxon 14	↳ Old name: <i>Brucella melitensis</i> biovar <i>ovis</i>
Bisgaard Taxa Bisgaard Taxon 16	<i>Brucella papionis</i>
<i>Blastomonas ursincola</i>	<i>Brucella</i> spp
<i>Bordetella avium</i>	<i>Budvicia aquatica</i>
<i>Bordetella bronchiseptica/parapertussis/pertussis</i>	<i>Burkholderia ambifaria</i>
<i>Bordetella hinzii</i>	<i>Burkholderia anthina</i>
<i>Bordetella holmesii</i>	<i>Burkholderia arboris</i>
<i>Bordetella petrii</i>	<i>Burkholderia cenocepacia</i>
<i>Bordetella</i> spp	<i>Burkholderia cepacia</i>
<i>Bordetella trematum</i>	<i>Burkholderia cepacia/multivorans</i>
<i>Brachybacterium</i> spp	<i>Burkholderia contaminans</i>
<i>Brachyspira hyodysenteriae</i>	<i>Burkholderia diffusa</i>
<i>Brachyspira intermedia</i>	<i>Burkholderia dolosa</i>
<i>Brachyspira pilosicoli</i>	<i>Burkholderia gladioli</i>
<i>Brachyspira</i> spp	<i>Burkholderia lata</i>
<i>Brevibacillus agri</i>	<i>Burkholderia latens</i>
<i>Brevibacillus borstelensis</i>	<i>Burkholderia metallica</i>
<i>Brevibacillus brevis</i>	<i>Burkholderia multivorans</i>
<i>Brevibacillus centrosporus</i>	<i>Burkholderia pseudomallei</i>
<i>Brevibacillus choshinensis</i>	<i>Burkholderia pyrrocinia</i>
<i>Brevibacillus invocatus</i>	<i>Burkholderia</i> spp
	<i>Burkholderia stabilis</i>

<i>Burkholderia thailandensis</i>	<i>Citrobacter</i> spp
<i>Burkholderia ubonensis</i>	<i>Clostridium baratii</i>
<i>Burkholderia vietnamiensis</i>	<i>Clostridium beijerinckii</i>
<i>Buttiauxella agrestis</i>	<i>Clostridium botulinum</i>
<i>Caldibacillus debilis</i>	<i>Clostridium butyricum</i>
<i>Campylobacter coli</i>	<i>Clostridium cadaveris</i>
<i>Campylobacter fetus</i>	<i>Clostridium difficile</i>
<i>Campylobacter fetus</i> ssp <i>fetus</i>	<i>Clostridium paraputrificum</i>
<i>Campylobacter hyointestinalis</i>	<i>Clostridium perfringens</i>
<i>Campylobacter jejuni</i>	<i>Clostridium ramosum</i>
<i>Campylobacter lari</i>	<i>Clostridium septicum</i>
<i>Campylobacter</i> spp	<i>Clostridium sporogenes</i>
<i>Campylobacter sputorum</i>	<i>Clostridium</i> spp
<i>Campylobacter upsaliensis</i>	<i>Clostridium tertium</i>
<i>Campylobacter ureolyticus</i>	<i>Clostridium tetani</i>
<i>Capnocytophaga canimorsus</i>	<i>Clostridium tetanomorphum</i>
<i>Capnocytophaga canimorsus/cynodegmi</i>	<i>Coenonia anatina</i>
<i>Capnocytophaga gingivalis</i>	<i>Comamonadaceae</i>
<i>Capnocytophaga granulosa</i>	<i>Comamonas aquatica</i>
<i>Capnocytophaga ochracea/sputigena</i>	<i>Comamonas</i> spp
<i>Capnocytophaga</i> spp	<i>Comamonas testosteroni</i>
<i>Cardiobacterium hominis</i>	<i>Corynebacterium amycolatum</i>
<i>Carnobacterium divergens</i>	<i>Corynebacterium amycolatum/striatum</i>
<i>Carnobacterium maltaromaticum</i>	<i>Corynebacterium amycolatum/xerosis</i>
<i>Cedecea lapagei</i>	<i>Corynebacterium aurimucosum</i>
<i>Cedecea</i> spp	<i>Corynebacterium diphtheriae</i>
<i>Cellulomonas uda</i>	<i>Corynebacterium glucuronolyticum</i>
<i>Chlorobium clathratiforme</i>	<i>Corynebacterium jeikeium</i>
<i>Chlorobium</i> spp	<i>Corynebacterium kutscheri</i>
<i>Chromobacterium violaceum</i>	<i>Corynebacterium macginleyi</i>
<i>Chryseobacterium gleum</i>	<i>Corynebacterium pseudodiphtheriticum</i>
<i>Chryseobacterium indologenes</i>	<i>Corynebacterium pseudotuberculosis</i>
<i>Chryseobacterium</i> spp	<i>Corynebacterium renale</i>
<i>Citrobacter amalonaticus</i>	<i>Corynebacterium</i> spp
<i>Citrobacter amalonaticus/farmeri</i>	<i>Corynebacterium striatum</i>
<i>Citrobacter braakii</i>	<i>Corynebacterium ulcerans</i>
<i>Citrobacter farmeri</i>	<i>Corynebacterium urealyticum</i>
<i>Citrobacter freundii</i>	<i>Coxiella burnetii</i>
<i>Citrobacter koseri</i>	<i>Cronobacter malonaticus</i>

<i>Cronobacter muytjensii</i>	<i>Enterococcus durans</i>
<i>Cronobacter sakazakii</i>	<i>Enterococcus faecalis</i>
<i>Cronobacter</i> spp	<i>Enterococcus faecium</i>
<i>Cronobacter turicensis</i>	<i>Enterococcus gallinarum</i>
<i>Cupriavidus gilardii</i>	<i>Enterococcus hirae</i>
<i>Cupriavidus necator</i>	<i>Enterococcus italicus</i>
<i>Cupriavidus oxalaticus</i>	<i>Enterococcus mundtii</i>
<i>Cupriavidus pauculus</i>	<i>Enterococcus raffinosus</i>
<i>Cupriavidus respiraculi</i>	<i>Enterococcus saccharolyticus</i>
<i>Cutibacterium acnes</i>	<i>Enterococcus</i> spp
↳ Old name: <i>Propionibacterium acnes</i>	<i>Erysipelothrix rhusiopathiae</i>
<i>Cutibacterium granulosum</i>	<i>Escherichia coli</i>
↳ Old name: <i>Propionibacterium granulosum</i>	<i>Escherichia hermannii</i>
<i>Delftia acidovorans</i>	<i>Escherichia</i> spp
<i>Delftia</i> spp	<i>Escherichia vulneris</i>
<i>Dermabacter hominis</i>	<i>Eubacterium callanderi</i>
<i>Dermacoccus nishinomiyaensis</i>	<i>Eubacterium limosum</i>
<i>Edwardsiella</i> spp	<i>Eubacterium</i> spp
<i>Eggerthella lenta</i>	<i>Ewingella americana</i>
<i>Eggerthia cateniformis</i>	<i>Facklamia hominis</i>
<i>Eikenella corrodens</i>	<i>Finegoldia magna</i>
<i>Elizabethkingia anophelis</i>	<i>Flavobacteriaceae</i>
<i>Elizabethkingia meningoseptica</i>	<i>Flavobacterium</i> spp
<i>Elizabethkingia miricola</i>	<i>Flavonifractor plautii</i>
<i>Elizabethkingia</i> spp	↳ Old name: <i>Eubacterium plautii</i>
<i>Empedobacter brevis</i>	<i>Fluoribacter dumoffii</i>
<i>Empedobacter falsenii</i>	<i>Fluoribacter gormanii</i>
<i>Enterobacter aerogenes</i>	<i>Francisella tularensis</i>
<i>Enterobacter asburiae</i>	<i>Francisella tularensis</i> ssp <i>holarctica</i>
<i>Enterobacter cancerogenus</i>	<i>Franconibacter helveticus</i>
<i>Enterobacter cloacae</i>	<i>Franconibacter pulveris</i>
<i>Enterobacter kobei</i>	<i>Fusobacterium gonidiaformans</i>
<i>Enterobacter ludwigii</i>	<i>Fusobacterium mortiferum</i>
<i>Enterobacter</i> spp	<i>Fusobacterium necrophorum</i>
<i>Enterobacteriaceae</i>	<i>Fusobacterium nucleatum</i>
<i>Enterococcus avium/raffinosis</i>	<i>Fusobacterium periodonticum</i>
<i>Enterococcus casseliflavus</i>	<i>Fusobacterium</i> spp
<i>Enterococcus cecorum</i>	<i>Fusobacterium russii</i>
<i>Enterococcus columbae</i>	<i>Fusobacterium varium</i>

<i>Gallibacterium anatis</i>	<i>Klebsiella pneumoniae</i>
<i>Gardnerella vaginalis</i>	<i>Klebsiella spp</i>
<i>Gemella bergeri</i>	<i>Kluyvera ascorbata</i>
<i>Gemella spp</i>	<i>Kluyvera cryocrescens</i>
<i>Geobacillus caldoxylosilyticus</i>	<i>Kluyvera intermedia</i>
<i>Geobacillus stearothermophilus</i>	<i>Kluyvera spp</i>
<i>Geobacillus thermodenitrificans</i>	<i>Kocuria carniphila</i>
<i>Geobacillus thermoglucosidasius</i>	<i>Kocuria kristinae</i>
<i>Globicatella spp</i>	<i>Kocuria palustris</i>
<i>Gordonia alkanivorans</i>	<i>Kocuria rhizophila</i>
<i>Gordonia amarae</i>	<i>Kocuria rosea</i>
<i>Gordonia bronchialis</i>	<i>Kocuria spp</i>
<i>Gordonia namibiensis</i>	<i>Kocuria varians</i>
<i>Gordonia rubripertincta</i>	<i>Kosakonia cowanii</i>
<i>Gordonia sputi</i>	<i>Kytococcus sedentarius</i>
<i>Gordonia terrae</i>	<i>Lactobacillus acidophilus/gasseri</i>
<i>Granulicatella adiacens</i>	<i>Lactobacillus alimentarius</i>
<i>Granulicatella elegans</i>	<i>Lactobacillus brevis</i>
<i>Granulicatella spp</i>	<i>Lactobacillus buchneri</i>
<i>Grimontia hollisae</i>	<i>Lactobacillus collinoides</i>
<i>Haemophilus haemoglobinophilus</i>	<i>Lactobacillus coryniformis</i>
<i>Haemophilus influenzae</i>	<i>Lactobacillus crispatus</i>
<i>Haemophilus parahaemolyticus</i>	<i>Lactobacillus curvatus</i>
<i>Haemophilus parainfluenzae</i>	<i>Lactobacillus delbrueckii</i>
<i>Haemophilus parasuis</i>	<i>Lactobacillus fermentum</i>
<i>Haemophilus spp</i>	<i>Lactobacillus fructivorans</i>
<i>Hafnia alvei</i>	<i>Lactobacillus fuchuensis</i>
<i>Hathewayia histolytica</i>	<i>Lactobacillus helveticus</i>
<i>Hathewayia limosa</i>	<i>Lactobacillus hilgardii</i>
<i>Helcococcus kunzii</i>	<i>Lactobacillus iners</i>
<i>Helcococcus ovis</i>	<i>Lactobacillus ingluviei</i>
<i>Helicobacter pylori</i>	<i>Lactobacillus jensenii</i>
<i>Herbaspirillum huttiense</i>	<i>Lactobacillus johnsonii</i>
<i>Histophilus somni</i>	<i>Lactobacillus kefiri</i>
<i>Hydrogenophaga spp</i>	<i>Lactobacillus lindneri</i>
<i>Inquilinus limosus</i>	<i>Lactobacillus mali</i>
<i>Kingella denitrificans</i>	<i>Lactobacillus parabuchneri</i>
<i>Kingella kingae</i>	<i>Lactobacillus paracasei</i>
<i>Klebsiella oxytoca</i>	<i>Lactobacillus paracasei ssp tolerans</i>

<i>Lactobacillus paracollinoides</i>	<i>Leifsonia aquatica</i>
<i>Lactobacillus parapantarum</i>	<i>Leptospira</i> spp
<i>Lactobacillus pentosus</i>	<i>Leptotrichia buccalis</i>
<i>Lactobacillus pentosus/plantarum</i>	<i>Leuconostoc carnosum</i>
<i>Lactobacillus perolens</i>	<i>Leuconostoc citreum</i>
<i>Lactobacillus reuteri</i>	<i>Leuconostoc fallax</i>
<i>Lactobacillus rhamnosus</i>	<i>Leuconostoc lactis</i>
<i>Lactobacillus sakei</i>	<i>Leuconostoc mesenteroides</i>
<i>Lactobacillus</i> spp	<i>Leuconostoc mesenteroides</i> ssp <i>cremoris</i>
<i>Lactococcus garvieae</i>	<i>Leuconostoc pseudomesenteroides</i>
<i>Lactococcus lactis</i>	<i>Leuconostoc</i> spp
<i>Lactococcus raffinolactis</i>	<i>Listeria grayi</i>
<i>Lamprocystis purpurea</i>	<i>Listeria innocua</i>
<i>Lamprocystis</i> spp	<i>Listeria ivanovii</i>
<i>Leclercia adecarboxylata</i>	<i>Listeria monocytogenes</i>
<i>Legionella anisa</i>	<i>Listeria seeligeri</i>
<i>Legionella birminghamensis</i>	<i>Listeria</i> spp
<i>Legionella bozemanae</i>	<i>Listeria welshimeri</i>
<i>Legionella cherrii</i>	<i>Lysinibacillus fusiformis/sphaericus</i>
<i>Legionella cincinnatiensis</i>	<i>Mannheimia granulomatis</i>
<i>Legionella drancourtii</i>	<i>Mannheimia haemolytica</i>
<i>Legionella erythra</i>	<i>Megasphaera cerevisiae</i>
<i>Legionella feeleeii</i>	<i>Methylobacterium radiotolerans</i>
<i>Legionella hackeliae</i>	<i>Methylobacterium</i> spp
<i>Legionella israelensis</i>	<i>Microbacterium</i> spp
<i>Legionella jamestowniensis</i>	<i>Micrococcus luteus</i>
<i>Legionella jordanis</i>	<i>Micrococcus</i> spp
<i>Legionella lansingensis</i>	<i>Mobiluncus curtisii</i>
<i>Legionella londiniensis</i>	<i>Mobiluncus mulieris</i>
<i>Legionella longbeachae</i>	<i>Moellerella wisconsensis</i>
<i>Legionella oakridgensis</i>	<i>Moraxella atlantae</i>
<i>Legionella parisiensis</i>	<i>Moraxella bovis</i>
<i>Legionella pneumophila</i>	<i>Moraxella catarrhalis</i>
<i>Legionella rubrilucens</i>	<i>Moraxella caviae</i>
<i>Legionella sainthelensi</i>	<i>Moraxella lacunata</i>
<i>Legionella</i> spp	<i>Moraxella nonliquefaciens</i>
<i>Legionella steigerwaltii</i>	<i>Moraxella osloensis</i>
<i>Legionella taurinensis</i>	<i>Moraxella</i> spp
<i>Legionella wadsworthii</i>	<i>Morganella morganii</i>

<i>Mycobacterium abscessus</i>	<i>Mycobacterium triplex</i>
<i>Mycobacterium agri</i>	<i>Mycobacterium tuberculosis-Complex</i>
<i>Mycobacterium arupense/nonchromogenicum</i>	<i>Mycobacterium vaccae</i>
<i>Mycobacterium asiaticum</i>	<i>Mycobacterium xenopi</i>
<i>Mycobacterium aurum</i>	<i>Mycoplasma alkalescens</i>
<i>Mycobacterium avium</i>	<i>Mycoplasma alvi</i>
<i>Mycobacterium celatum</i>	<i>Mycoplasma arginini</i>
<i>Mycobacterium chelonae</i>	<i>Mycoplasma bovigenitalium</i>
<i>Mycobacterium cosmeticum</i>	<i>Mycoplasma bovoculi</i>
<i>Mycobacterium flavescens</i>	<i>Mycoplasma californicum</i>
<i>Mycobacterium fortuitum-Complex</i>	<i>Mycoplasma canadense</i>
<i>Mycobacterium gastri</i>	<i>Mycoplasma conjunctivae</i>
<i>Mycobacterium gilvum</i>	<i>Mycoplasma fermentans</i>
<i>Mycobacterium goodii</i>	<i>Mycoplasma gallisepticum</i>
<i>Mycobacterium gordonae</i>	<i>Mycoplasma genitalium</i>
<i>Mycobacterium haemophilum</i>	<i>Mycoplasma hominis</i>
<i>Mycobacterium heckeshornense</i>	<i>Mycoplasma hyopneumoniae</i>
<i>Mycobacterium immunogenum</i>	<i>Mycoplasma hyorhinis</i>
<i>Mycobacterium intracellulare</i>	<i>Mycoplasma orale</i>
<i>Mycobacterium kansasii</i>	<i>Mycoplasma pirum</i>
<i>Mycobacterium kubicae</i>	<i>Mycoplasma pneumoniae</i>
<i>Mycobacterium lentiflavum</i>	<i>Mycoplasma salivarium</i>
<i>Mycobacterium mageritense</i>	<i>Mycoplasma</i> spp
<i>Mycobacterium malmoense</i>	<i>Myroides odoratimimus</i>
<i>Mycobacterium marinum</i>	<i>Myroides</i> spp
<i>Mycobacterium moriokaense</i>	<i>Neisseria animaloris</i>
<i>Mycobacterium mucogenicum</i>	<i>Neisseria canis</i>
<i>Mycobacterium nebraskense</i>	<i>Neisseria cinerea</i>
<i>Mycobacterium neoaurum</i>	<i>Neisseria flava</i>
<i>Mycobacterium obuense</i>	<i>Neisseria gonorrhoeae</i>
<i>Mycobacterium paraffinicum</i>	<i>Neisseria lactamica</i>
<i>Mycobacterium peregrinum</i>	<i>Neisseria meningitidis</i>
<i>Mycobacterium phlei</i>	<i>Neisseria polysaccharea</i>
<i>Mycobacterium scrofulaceum</i>	<i>Neisseria</i> spp
<i>Mycobacterium shimoidei</i>	<i>Neisseria subflava</i>
<i>Mycobacterium simiae</i>	<i>Neisseria wadsworthii</i>
<i>Mycobacterium smegmatis</i>	<i>Neisseria weaveri</i>
<i>Mycobacterium szulgai</i>	<i>Neisseria zoodegmatidis</i>
<i>Mycobacterium thermoresistibile</i>	<i>Nocardia abscessus</i>

<i>Nocardia abscessus/asiatica</i>	<i>Paenibacillus lautus</i>
<i>Nocardia abscessus/asteroides/farcinica</i>	<i>Paenibacillus macerans</i>
<i>Nocardia africana/nova</i>	<i>Paenibacillus naphthalenovorans</i>
<i>Nocardia asiatica</i>	<i>Paenibacillus peoriae</i>
<i>Nocardia asteroides</i>	<i>Paenibacillus polymyxa</i>
<i>Nocardia beijingensis</i>	<i>Paenibacillus provencensis</i>
<i>Nocardia brasiliensis</i>	<i>Paenibacillus pueri</i>
<i>Nocardia carnea</i>	<i>Paenibacillus spp</i>
<i>Nocardia cyriacigeorgica</i>	<i>Paenibacillus validus</i>
<i>Nocardia farcinica</i>	<i>Pandoraea apista</i>
<i>Nocardia neocaledoniensis</i>	<i>Pandoraea norimbergensis</i>
<i>Nocardia otitidiscaviarum</i>	<i>Pandoraea pnomenusa</i>
<i>Nocardia paucivorans</i>	<i>Pandoraea pulmonicola</i>
<i>Nocardia pseudobrasiliensis</i>	<i>Pandoraea spp</i>
<i>Nocardia spp</i>	<i>Pandoraea sputorum</i>
<i>Nocardia transvalensis</i>	<i>Pantoea agglomerans</i>
<i>Nocardia veterana</i>	<i>Pantoea dispersa</i>
<i>Nocardia wallacei</i>	<i>Parabacteroides spp</i>
<i>Novosphingobium aromaticivorans</i>	<i>Parabacteroides distasonis</i>
<i>Oceanobacillus caeni</i>	<i>Parabacteroides merdae</i>
<i>Ochrobactrum anthropi</i>	<i>Paraburkholderia fungorum</i>
<i>Ochrobactrum ciceri/intermedium</i>	<i>Paracoccus denitrificans</i>
<i>Ochrobactrum pseudogrignonense</i>	<i>Paracoccus spp</i>
<i>Ochrobactrum spp</i>	<i>Paracoccus versutus</i>
<i>Odoribacter splanchnicus</i>	<i>Paracoccus yeei</i>
<i>Oerskovia turbata</i>	<i>Parvimonas micra</i>
<i>Oligella spp</i>	<i>Pasteurella aerogenes</i>
<i>Oligella ureolytica</i>	<i>Pasteurella caballi</i>
<i>Oligella urethralis</i>	<i>Pasteurella canis</i>
<i>Ornithobacterium rhinotracheale</i>	<i>Pasteurella mairii</i>
<i>Paenibacillus agarexedens</i>	<i>Pasteurella multocida</i>
<i>Paenibacillus alvei</i>	<i>Pasteurella pneumotropica</i>
<i>Paenibacillus amylolyticus</i>	<i>Pasteurella spp</i>
<i>Paenibacillus apiarius</i>	<i>Pasteurella testudinis</i>
<i>Paenibacillus durus</i>	<i>Pasteurellaceae</i>
<i>Paenibacillus glucanolyticus</i>	<i>Pectobacterium carotovorum ssp carotovorum</i>
<i>Paenibacillus jamilae</i>	<i>Pediococcus acidilactici</i>
<i>Paenibacillus lactis</i>	<i>Pediococcus damnosus</i>
<i>Paenibacillus larvae</i>	<i>Pediococcus inopinatus</i>

<i>Pediococcus parvulus</i>	<i>Prevotella oris</i>
<i>Pediococcus pentosaceus</i>	<i>Prevotella salivae</i>
<i>Pediococcus</i> spp	<i>Prevotella</i> spp
<i>Pedobacter</i> spp	<i>Prevotella timonensis</i>
<i>Pelistega europaea</i>	<i>Prevotella veroralis</i>
<i>Peptococcus niger</i>	<i>Propionibacterium freudenreichii</i>
<i>Peptoniphilus asaccharolyticus</i>	<i>Proteus mirabilis</i>
<i>Peptoniphilus gorbachii</i>	<i>Proteus</i> spp
<i>Peptoniphilus harei</i>	<i>Proteus vulgaris</i>
<i>Peptoniphilus indolicus</i>	<i>Proteus vulgaris/penneri</i>
<i>Peptoniphilus ivorii</i>	<i>Providencia alcalifaciens</i>
<i>Peptoniphilus lacrimalis</i>	<i>Providencia rettgeri</i>
<i>Peptoniphilus olsenii</i>	<i>Providencia rustigianii</i>
<i>Peptoniphilus</i> spp	<i>Providencia</i> spp
<i>Peptostreptococcus anaerobius</i>	<i>Providencia stuartii</i>
<i>Phenylobacterium</i> spp	<i>Pseudarthrobacter oxydans</i>
<i>Photobacterium damsela</i>	↳ Old name: <i>Arthrobacter oxydans</i>
<i>Plesiomonas shigelloides</i>	<i>Pseudochrobactrum lubricantis/saccharolyticum</i>
<i>Pluralibacter gergoviae</i>	<i>Pseudochrobactrum</i> spp
<i>Porphyromonas asaccharolytica</i>	<i>Pseudoflavonifractor capillosus</i>
<i>Porphyromonas gingivalis</i>	<i>Pseudoglutamicibacter cumminsii</i>
<i>Porphyromonas somerae</i>	<i>Pseudomonas aeruginosa</i>
<i>Porphyromonas</i> spp	<i>Pseudomonas anguilliseptica</i>
<i>Porphyromonas uenonis</i>	<i>Pseudomonas chlororaphis</i>
<i>Prevotella baroniae</i>	<i>Pseudomonas citronellolis/delhiensis</i>
<i>Prevotella bergensis</i>	<i>Pseudomonas cuatrocienegasensis</i>
<i>Prevotella bivia</i>	<i>Pseudomonas extremorientalis</i>
<i>Prevotella buccae</i>	<i>Pseudomonas fluorescens</i>
<i>Prevotella buccalis</i>	<i>Pseudomonas fragi</i>
<i>Prevotella denticola</i>	<i>Pseudomonas graminis</i>
<i>Prevotella disiens</i>	<i>Pseudomonas luteola</i>
<i>Prevotella intermedia</i>	<i>Pseudomonas migulae</i>
<i>Prevotella loescheii</i>	<i>Pseudomonas mucidolens</i>
<i>Prevotella melaninogenica</i>	<i>Pseudomonas nitroreducens</i>
<i>Prevotella melaninogenica/bivia</i>	<i>Pseudomonas oleovorans</i>
<i>Prevotella multiformis</i>	<i>Pseudomonas oryzihabitans</i>
<i>Prevotella nanceiencis</i>	<i>Pseudomonas peli</i>
<i>Prevotella nigrescens</i>	<i>Pseudomonas putida</i>
<i>Prevotella oralis</i>	

<i>Pseudomonas rhizosphaerae</i>	<i>Salmonella enterica</i> ssp <i>enterica</i>
<i>Pseudomonas rhodesiae</i>	<i>Salmonella enterica</i> ssp <i>houtenae</i>
<i>Pseudomonas</i> spp	<i>Salmonella</i> spp
<i>Pseudomonas straminea</i>	<i>Serratia ficaria</i>
<i>Pseudomonas stutzeri</i>	<i>Serratia fonticola</i>
<i>Pseudomonas synxantha</i>	<i>Serratia liquefaciens</i>
<i>Pseudomonas syringae</i>	<i>Serratia marcescens</i>
<i>Pseudomonas syringae</i> pv. <i>delphinii</i>	<i>Serratia plymuthica</i>
<i>Pseudomonas thermotolerans</i>	<i>Serratia proteamaculans</i>
<i>Pseudomonas veronii</i>	<i>Serratia</i> spp
<i>Pseudomonas viridiflava</i>	<i>Serratia rubidaea</i>
<i>Pseudopropionibacterium propionicum</i>	<i>Shewanella algae</i>
↳ Old name: <i>Propionibacterium propionicum</i>	<i>Shewanella putrefaciens</i>
<i>Pseudoxanthomonas japonensis/mexicana</i>	<i>Shigella boydii</i>
<i>Pseudoxanthomonas</i> spp	<i>Shigella dysenteriae</i>
<i>Psychrobacter phenylpyruvicus</i>	<i>Shigella flexneri</i>
<i>Psychrobacter</i> spp	<i>Shigella sonnei</i>
<i>Rahnella aquatilis</i>	<i>Shigella</i> spp
<i>Rahnella</i> spp	<i>Shimwellia blattae</i>
<i>Ralstonia insidiosa</i>	<i>Siccibacter turicensis</i>
<i>Ralstonia mannitolilytica</i>	<i>Solibacillus silvestris</i>
<i>Ralstonia pickettii</i>	<i>Sphingobacterium daejeonense</i>
<i>Ralstonia</i> spp	<i>Sphingobacterium multivorum</i>
<i>Raoultella ornithinolytica</i>	<i>Sphingobacterium spiritivorum</i>
<i>Raoultella</i> spp	<i>Sphingobacterium thalpophilum</i>
<i>Rheinheimera texasensis</i>	<i>Sphingobium chlorophenicum</i>
<i>Rhizobiaceae</i>	<i>Sphingobium xenophagum</i>
<i>Rhizobium radiobacter</i>	<i>Sphingobium yanoikuyae</i>
<i>Rhizorhapis suberifaciens</i>	<i>Sphingomonas adhaesiva</i>
<i>Rhodococcus hoagii</i>	<i>Sphingomonas echinoides</i>
<i>Riemerella anatipestifer</i>	<i>Sphingomonas koreensis</i>
<i>Riemerella</i> spp	<i>Sphingomonas leidyi</i>
<i>Robinsoniella peoriensis</i>	<i>Sphingomonas melonis</i>
<i>Rothia aeria</i>	<i>Sphingomonas parapaucimobilis</i>
<i>Rothia amarae</i>	<i>Sphingomonas paucimobilis</i>
<i>Rothia dentocariosa</i>	<i>Sphingomonas</i> spp
<i>Rothia mucilaginoso</i>	<i>Sphingomonas trueperi</i>
<i>Ruminococcus gnavus</i>	<i>Staphylococcus arlettae</i>
<i>Salmonella enterica</i> ssp <i>arizonae</i>	<i>Staphylococcus aureus</i>

<i>Staphylococcus auricularis</i>	<i>Streptococcus anginosus/constellatus/gordonii</i>
<i>Staphylococcus capitis</i>	<i>Streptococcus australis</i>
<i>Staphylococcus caprae</i>	<i>Streptococcus australis/parasanguinis</i>
<i>Staphylococcus caprae/capitis</i>	<i>Streptococcus canis</i>
<i>Staphylococcus carnosus</i>	<i>Streptococcus canis/equi</i>
<i>Staphylococcus chromogenes</i>	<i>Streptococcus constellatus</i>
<i>Staphylococcus cohnii</i>	<i>Streptococcus constellatus/intermedius</i>
<i>Staphylococcus delphini</i>	<i>Streptococcus cristatus</i>
<i>Staphylococcus delphini/intermedius/pseudintermedius</i>	<i>Streptococcus dysgalactiae</i>
<i>Staphylococcus epidermidis</i>	<i>Streptococcus dysgalactiae ssp dysgalactiae</i>
<i>Staphylococcus equorum</i>	<i>Streptococcus dysgalactiae ssp equisimilis</i>
<i>Staphylococcus gallinarum</i>	<i>Streptococcus dysgalactiae/pyogenes</i>
<i>Staphylococcus haemolyticus</i>	<i>Streptococcus equi</i>
<i>Staphylococcus hominis</i>	<i>Streptococcus equi ssp equi</i>
<i>Staphylococcus hyicus</i>	<i>Streptococcus equi ssp zooepidemicus</i>
<i>Staphylococcus intermedius</i>	<i>Streptococcus equinus</i>
<i>Staphylococcus kloosii</i>	<i>Streptococcus gallolyticus</i>
<i>Staphylococcus lentus</i>	<i>Streptococcus gallolyticus ssp gallolyticus</i>
<i>Staphylococcus lugdunensis</i>	<i>Streptococcus gallolyticus ssp macedonicus</i>
<i>Staphylococcus pseudintermedius</i>	<i>Streptococcus gallolyticus ssp pasteurianus</i>
<i>Staphylococcus saccharolyticus</i>	<i>Streptococcus gordonii</i>
<i>Staphylococcus saprophyticus</i>	<i>Streptococcus hyointestinalis</i>
<i>Staphylococcus schleiferi</i>	<i>Streptococcus hyovaginalis</i>
<i>Staphylococcus sciuri</i>	<i>Streptococcus infantarius</i>
<i>Staphylococcus simulans</i>	<i>Streptococcus infantarius ssp infantarius</i>
<i>Staphylococcus spp</i>	<i>Streptococcus infantis</i>
<i>Staphylococcus vitulinus</i>	<i>Streptococcus intermedius</i>
<i>Staphylococcus warneri</i>	<i>Streptococcus intermedius/constellatus</i>
<i>Staphylococcus warneri/pasteuri</i>	<i>Streptococcus mitis</i>
<i>Staphylococcus xylosum</i>	<i>Streptococcus mitis/oligofermentans/oralis</i>
<i>Stenotrophomonas acidaminiphila</i>	<i>Streptococcus mitis/oralis/pneumoniae</i>
<i>Stenotrophomonas maltophilia</i>	<i>Streptococcus mitis/oralis/pseudopneumoniae</i>
<i>Stenotrophomonas rhizophila</i>	<i>Streptococcus mutans</i>
<i>Stenotrophomonas spp</i>	<i>Streptococcus oligofermentans</i>
<i>Streptococcus agalactiae</i>	<i>Streptococcus oligofermentans/oralis</i>
<i>Streptococcus alactolyticus</i>	<i>Streptococcus oralis</i>
<i>Streptococcus anginosus</i>	<i>Streptococcus ovis</i>
<i>Streptococcus anginosus/constellatus</i>	<i>Streptococcus parasanguinis</i>
	<i>Streptococcus parauberis</i>

<i>Streptococcus peroris</i>	<i>Vibrio harveyi</i>
<i>Streptococcus pluranimalium</i>	<i>Vibrio mimicus</i>
<i>Streptococcus pneumoniae</i>	<i>Vibrio parahaemolyticus</i>
<i>Streptococcus pneumoniae/mitis</i>	<i>Vibrio</i> spp
<i>Streptococcus porcinus</i>	<i>Vibrio vulnificus</i>
<i>Streptococcus pyogenes</i>	<i>Virgibacillus pantothenicus</i>
<i>Streptococcus salivarius</i>	<i>Virgibacillus proomii</i>
<i>Streptococcus salivarius</i> ssp <i>thermophilus</i>	<i>Weeksella virosa</i>
<i>Streptococcus salivarius/vestibularis</i>	<i>Weissella confusa</i>
<i>Streptococcus sanguinis</i>	<i>Weissella viridescens</i>
<i>Streptococcus sobrinus</i>	<i>Xenorhabdus</i> spp
<i>Streptococcus</i> spp	<i>Yersinia aldovae</i>
<i>Streptococcus suis</i>	<i>Yersinia enterocolitica</i>
<i>Streptococcus thoralensis</i>	<i>Yersinia frederiksenii</i>
<i>Streptococcus uberis</i>	<i>Yersinia intermedia</i>
<i>Streptomyces albobacillus</i>	<i>Yersinia kristensenii</i>
<i>Streptomyces fradiae</i>	<i>Yersinia mollaretii</i>
<i>Streptomyces griseus</i>	<i>Yersinia pestis</i>
<i>Streptomyces griseus</i> ssp <i>griseus</i>	<i>Yersinia pseudotuberculosis</i>
<i>Suttonella indologenes</i>	<i>Yersinia ruckeri</i>
<i>Tatlockia micdadei</i>	<i>Yersinia</i> spp
<i>Tatlockia</i> spp	<i>Yokenella regensburgei</i>
<i>Tatumella tyseos</i>	
<i>Taylorella asinigenitalis</i>	
<i>Taylorella equigenitalis</i>	
<i>Tetragenococcus halophilus</i>	
<i>Trueperella bernardiae</i>	
<i>Trueperella pyogenes</i>	
<i>Tsukamurella paurometabola</i>	
<i>Vagococcus fluvialis</i>	
<i>Variovorax paradoxus</i>	
<i>Veillonella atypica</i>	
<i>Veillonella dispar</i>	
<i>Veillonella</i> spp	
<i>Vibrio alginolyticus</i>	
<i>Vibrio cholerae</i>	
<i>Vibrio cholerae/mimicus</i>	
<i>Vibrio furnissii</i>	

Revision History

This section contains a summary of changes made to each released revision of this document starting with part number 161150-1049 A.

Change type categories:

N/A	Not applicable (First publication)
Correction	Correction of documentation anomalies
Technical change	Addition, revision and/or removal of information related to the product
Administrative	Implementation of non-technical changes noticeable to the user

- Note:*
- *Minor typographical, grammar, and formatting changes are not included in the revision history.*
 - *Not all versions may be available in all languages.*

Release Date	Part Number	Change Type	Change Summary
2017-10	161150-1049 A	N/A	First publication

