



VITEK[®] SOLUTIONS

VITEK[®] MS Plus

VITEK[®] MS RUO

SARAMIS[®] KNOWLEDGE BASE 4.15.0 UPDATE





VITEK[®] SOLUTIONS / VITEK[®] MS

VITEK[®] MS Plus SARAMIS[®] KB Update 4.15.0

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VITEK[®] MS Plus Benefits

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SARAMIS[®] Knowledge Base V4.15.0

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User Documentation



**APPENDIX: SAMPLE PREPARATION
PROTOCOLS**



VITEK® MS Plus Benefits



VITEK® MS Plus: Providing Access to IVD & RUO Databases

- ▶ As part of VITEK® Solutions, the **VITEK® MS RUO** expands the **capabilities of the system** by providing a broad and open research database.
- ▶ **With only one sample preparation, you can benefit from both diagnostic (IVD database) and research (RUO database) applications**
- ▶ **Stay up-to-date with regular updates**
- ▶ **New protocols for *Brucella*, *Mycoplasma* and *Streptomyces***
 - ▶ Rapid, safe, and effective inactivation and extraction protocols



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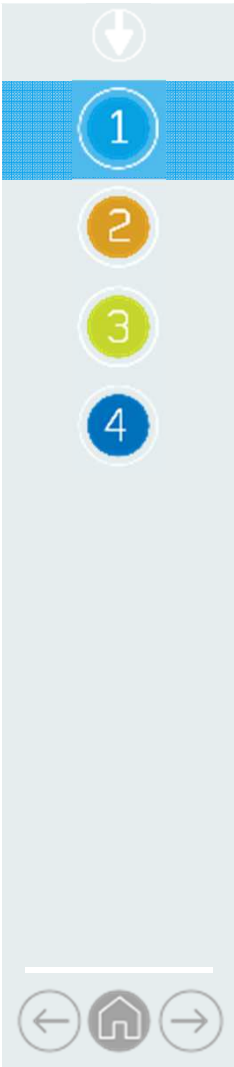
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VITEK® MS Plus Benefits



VITEK® MS (IVD)
1046 species claims



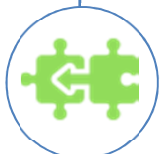
VITEK® MS (RUO)
SARAMIS® database
1857 taxa claims



CE-marked and US-FDA cleared for clinical microbiology testing



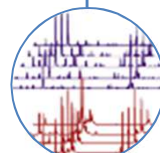
Comprehensive, **pre-defined, fixed database** of clinically relevant species



Complete & **seamless integration of ID and AST results** with VITEK® 2 through MYLA®



Research Use Only for expanded research capabilities



Easily record and save spectra to build a customized, **open database**



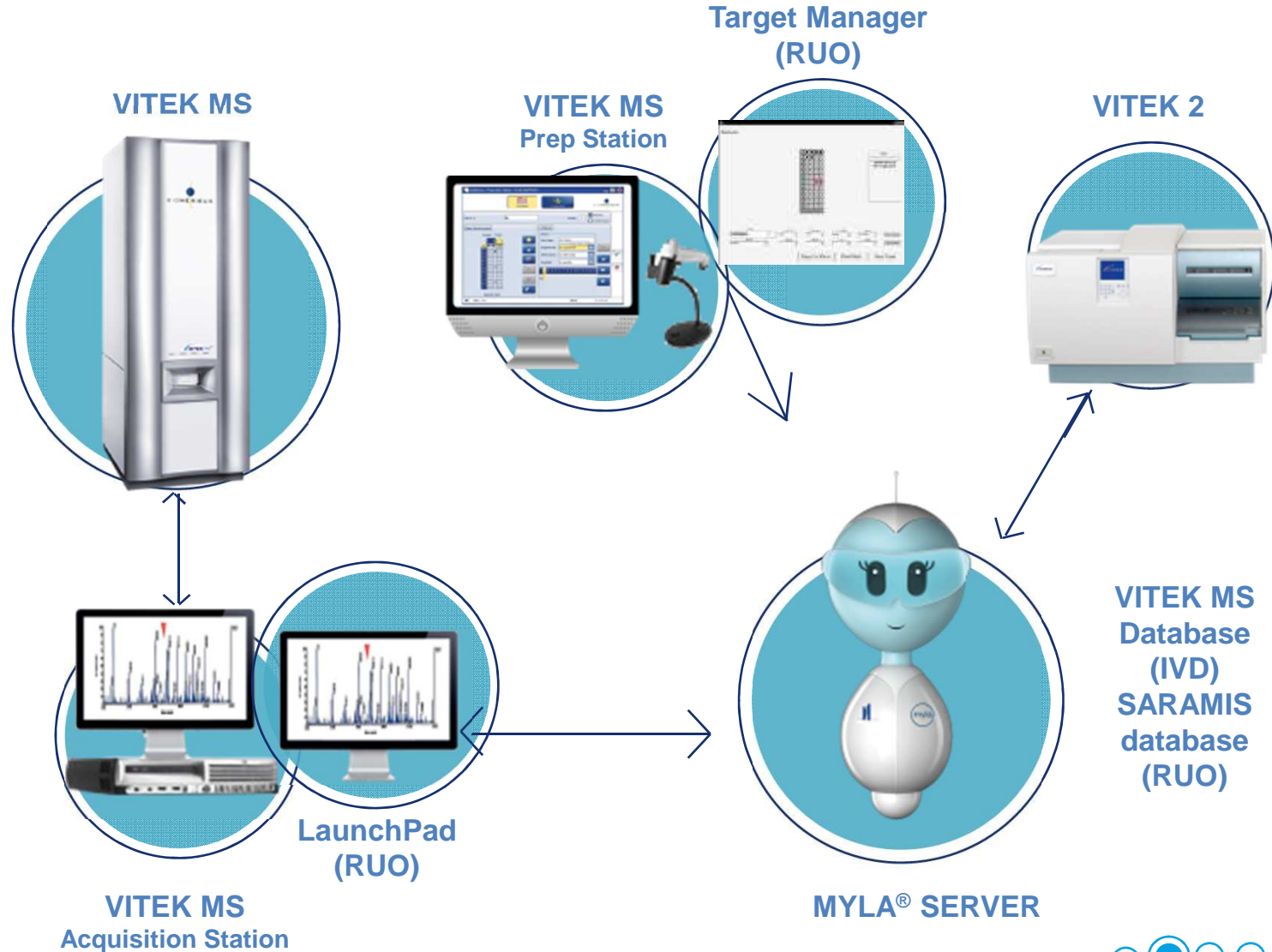
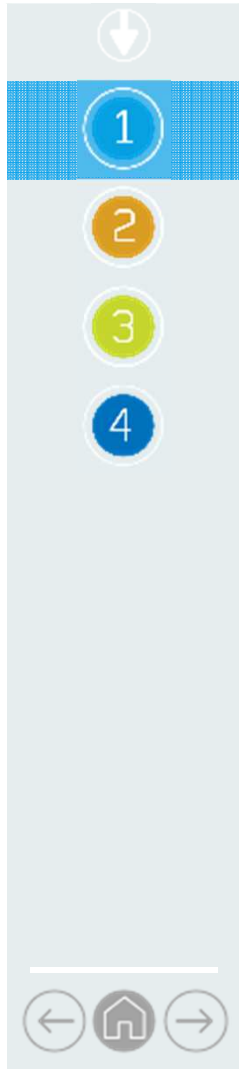
Allows research such as strain typing, detection of bacterial toxins and resistance, etc.

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VITEK[®] MS Plus



VITEK[®] Solutions Components



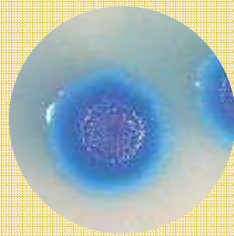
What's new?



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Mycoplasma

26 New Species

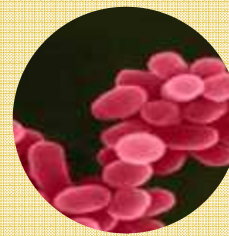
27 Species



Fungi

157 New Species

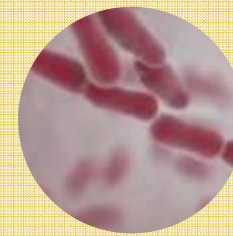
415 Species



***Brucella*
species**

11 New Species /
28 strains

12 Species



Elizabethkingia

2 New Species

5 Species



**Species
associated with
Cystic Fibrosis**

152 New Species

267 Species

►New preparation protocols for *Brucella*, *Mycoplasma*, and *Streptomyces*

► 348 new species

Diapositiva 6

DP1 this number is wrong - probably should be 8 rather than 28
PINCUS Dave; 13/12/2017



SARAMIS® Knowledge Base V4.15.0



Contents of the SARAMIS® Knowledge Base including the V4.15.0 Update

Organism groups	Taxa	Isolates	Reference Spectra	SuperSpectra
Bacteria (b)	1440	10181	21014	3126
Moulds (m)	275	1215	4274	590
Yeasts (y)	140	1208	2615	436
Algae (a)	2	24	41	3
Summary	1857	12628	27944	4155

- ▶ Extending knowledge base content
- ▶ Improving knowledge base performance
- ▶ Upgrading knowledge base taxonomy
- ▶ Fixing identified anomalies





SARAMIS® Knowledge Base V4.15.0



Taxonomy Changes

Taxon V4.15.0	Taxon V4.14.0	Organism Group
<i>Actinobacillus anseriformium</i>	Bisgaard Taxa Bisgaard Taxon 26	b
<i>Actinotignum schaalii</i>	<i>Actinobaculum schaalii</i>	b
<i>Brettanomyces bruxellensis</i>	<i>Dekkera bruxellensis</i>	y
<i>Brucella abortus</i>	<i>Brucella melitensis</i> biovar <i>abortus</i>	b
<i>Brucella neotamae</i>	<i>Brucella melitensis</i> biovar <i>neotomae</i>	b
<i>Brucella ovis</i>	<i>Brucella melitensis</i> biovar <i>ovis</i>	b
<i>Brucella suis</i>	<i>Brucella melitensis</i> biovar <i>suis</i>	b
<i>Cutibacterium acnes</i>	<i>Propionibacterium acnes</i>	b
<i>Cutibacterium avidum</i>	<i>Propionibacterium avidum</i>	b
<i>Cutibacterium granulosum</i>	<i>Propionibacterium granulosum</i>	b
<i>Flavonifractor plautii</i>	<i>Eubacterium plautii</i>	b
<i>Lichtheimia corymbifera</i>	<i>Absidia corymbifera</i>	m
<i>Pseudarthrobacter oxydans</i>	<i>Arthrobacter oxydans</i>	b
<i>Purpureocillium lilacinum</i>	<i>Paecilomyces lilacinus</i>	m
<i>Rhizobium</i>	<i>Agrobacterium</i>	b
<i>Saprochaete clavata</i>	<i>Geotrichum clavatum</i>	y
<i>Xenoacremonium recifei</i>	<i>Acremonium recifei</i>	m



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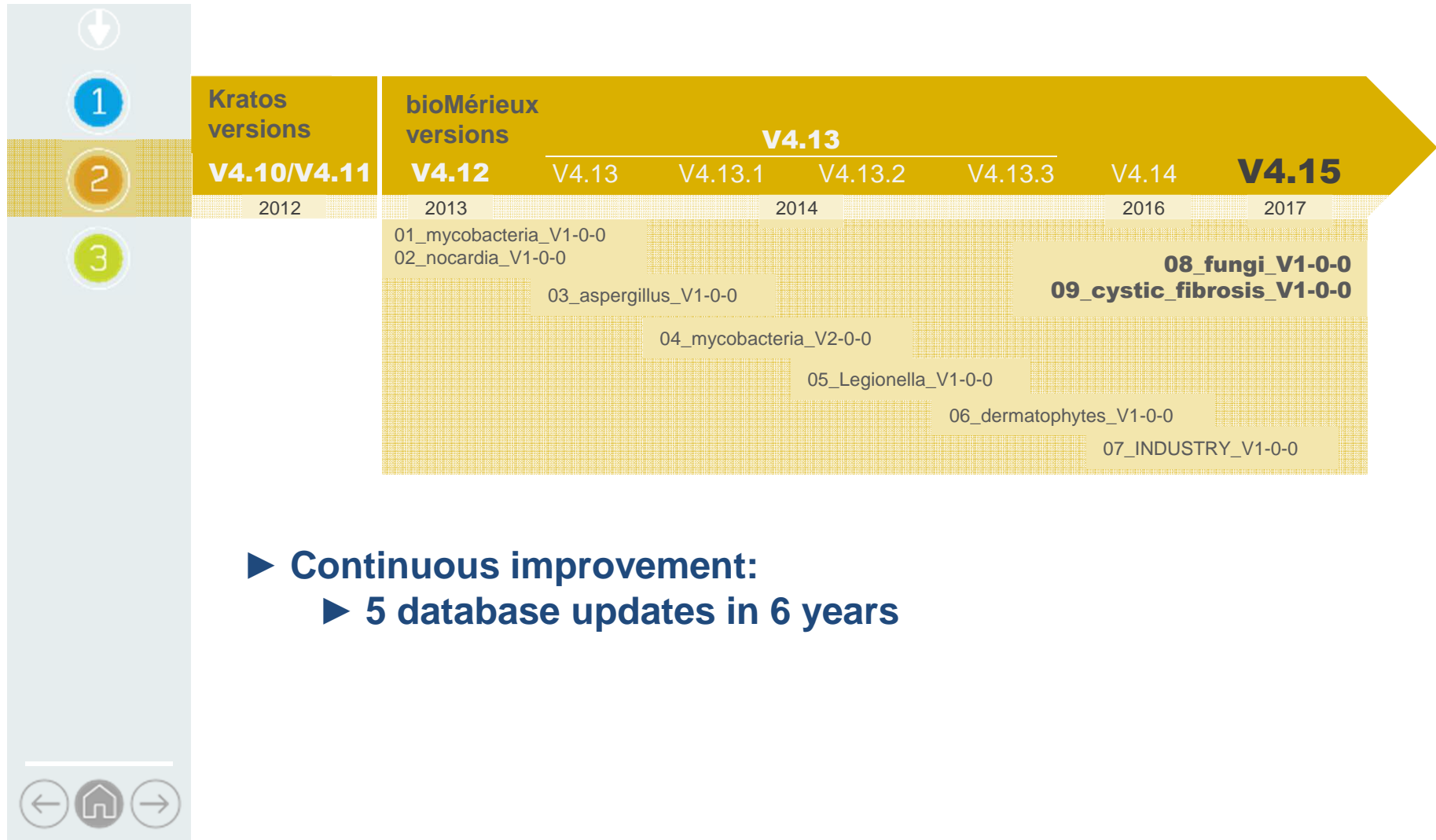




SARAMIS® Knowledge Base V4.15.0



History of SARAMIS® KB Updates



- ▶ Continuous improvement:
 - ▶ 5 database updates in 6 years

3 User Documentation



VITEK® MS RUO and VITEK® MS Plus complete documentation Available on the technical library



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Reference	Documents (English language only)
161150-222-B	VITEK® MS Plus Switcher User Manual
161150-216-B	VITEK® MS Plus SARAMIS Workflow User Manual
161150-214-A	VITEK® MS Plus SARAMIS User Manual
161150-215-A	VITEK® MS Plus SARAMIS Configuration User Manual
161150-213-A	VITEK® MS Plus Target Manager User Manual
161150-211-D – NEW	Service Documentation – VITEK MS PLUS system
161150-402-D – NEW	SARAMIS®_Installation_Procedure - en -VITEK MS RUO
161150-1049-A – NEW	User Manual Supplements - en - VITEK MS RUO - SARAMIS KB V4.15

Contains new species, preparation protocols, and complete KB list of species

New species will be highlighted in bold

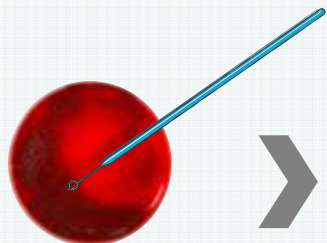




APPENDIX: SAMPLE PREPARATION PROTOCOLS

Brucella Inactivation & Sample Preparation Protocol

Brucella Inactivation process



Two full loops of 1 μ l of bacteria were vortex-mixed in 200 μ l of prepared solvent mixture.



Vortex 5 min at maximum speed using vortex adapter for holding microcentrifuge tubes



Incubate at room temperature for 10 min



Centrifugation 2 min @ 14 000G



Discard all of the supernatant



Add 10 μ l of CHCA matrix WITHOUT DISTURBING the pellet.

Do not vortex, do not resuspend.

Solvent mixture (prepared daily)

In a clean glass vial 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 μ l of trifluoroacetic acid (HPLC grade)

Homogenize.

Test conditions

Culture from 2 to 4 days

Validated media: Brucella Agar and Columbia 5% sheep's blood

QC strain: *Brucella melitensis* ATCC® 23456™

Sample Preparation deposit



Deposit 1 μ l of final preparation



Dry completely



No need to add CHCA matrix



APPENDIX: SAMPLE PREPARATION PROTOCOLS

Preparation Protocol for *Mycoplasma*

Creation and washing of the pellet



Re-suspension of the pellet



PELLET IS VISIBLE

Add 5 to 10 µl of sterile saline solution



PELLET IS NOT VISIBLE

Add 3 µl of VITEK® MS-CHCA matrix

Deposit the sample



Deposit **1 µl** of the final suspension
Let spot dry completely
Add 1 µl of VITEK® MS-CHCA matrix
Let spot dry completely



Deposit **1.5 µl** of the final suspension
Let spot dry completely
Do not add VITEK® MS-CHCA matrix

Test conditions

Culture from 2 to 7 days

Validated Media *: HIPlus and Spiroplasma Bases

QC strain: *Mycoplasma hominis* ATCC® 23014™

*reference VITEK® MS RUO - SARAMIS® KB V4.15 (161150-1049-A) for full inactivation and extraction steps

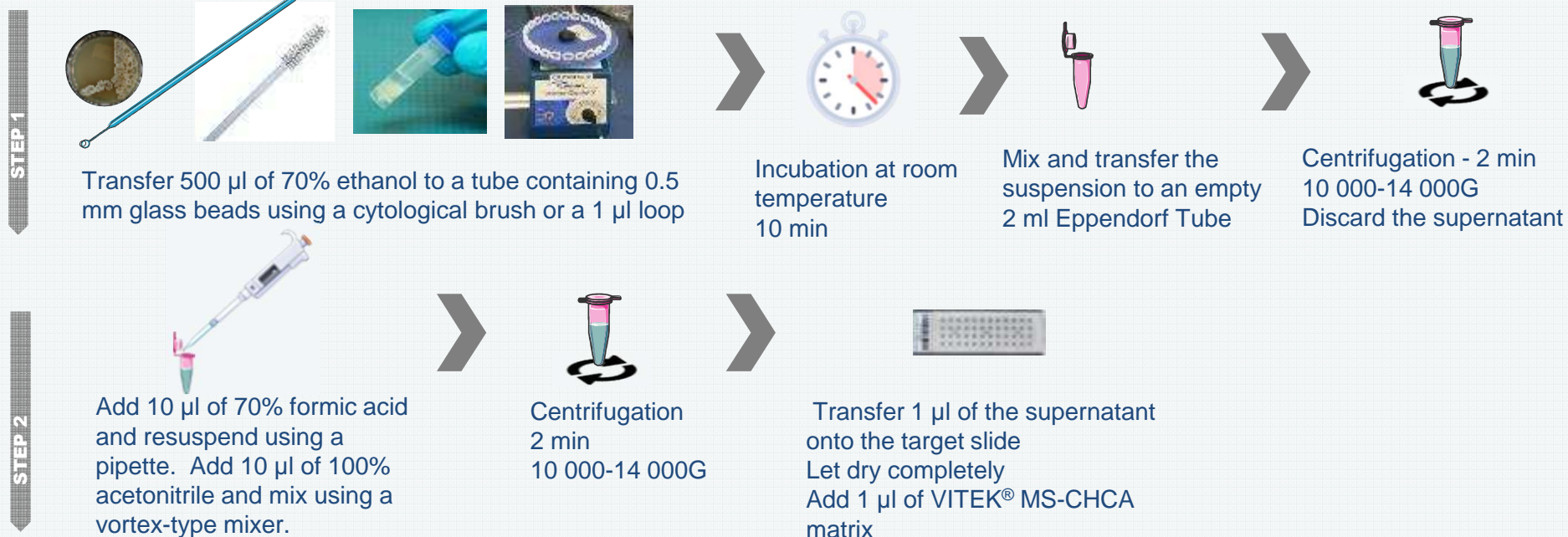


APPENDIX: SAMPLE PREPARATION PROTOCOLS

Preparation Protocol for *Streptomyces*

ethanol 70%, formic acid 70%, acetonitrile

Extraction Method



Direct Deposit



Test conditions

Culture of 48 – 72 h

Validated media: Columbia 5% sheep's blood agar, potato dextrose agar, trypticase soy agar, trypticase soy 5% sheep blood agar

QC strain: *Nocardia farcinica* ATCC® 3308™

*reference VITEK® MS RUO - SARAMIS® KB V4.15 (161150-1049-A) for full inactivation and extraction steps