

# MALDI TOF diagnostik

$$P_{RG} = \frac{AP+Sp-1}{Se+Sp-1} \int_a^b \varepsilon \Theta^{\sqrt{17}} + \Omega \int \delta e^{i\pi} = \{2.7182818284\}$$

$\infty$   $\chi^2$   $\Sigma$   $!$   $>$   $\omega$

# MALDI TOF

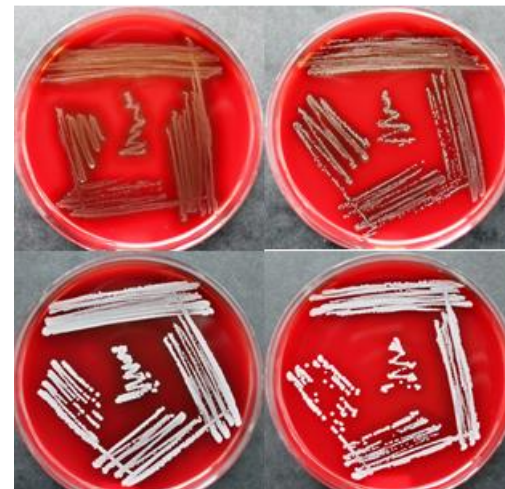
- Matrix-Assisted Laser Desorption/Ionization – Time Of Flight
- Har revolutioneret klinisk mikrobiologisk diagnostik de seneste ca. 5 år
- Kan identificere  $\geq 90\%$  af alle renkulturer
- Hurtig diagnostik
- 1 test pr. kultur
- Cost effective; ca. 1 Euro pr. prøve i materialer
- Løbende opdatering og forbedring med database fra forhandler suppleret med egne spektre

# Bakteriel diagnostik

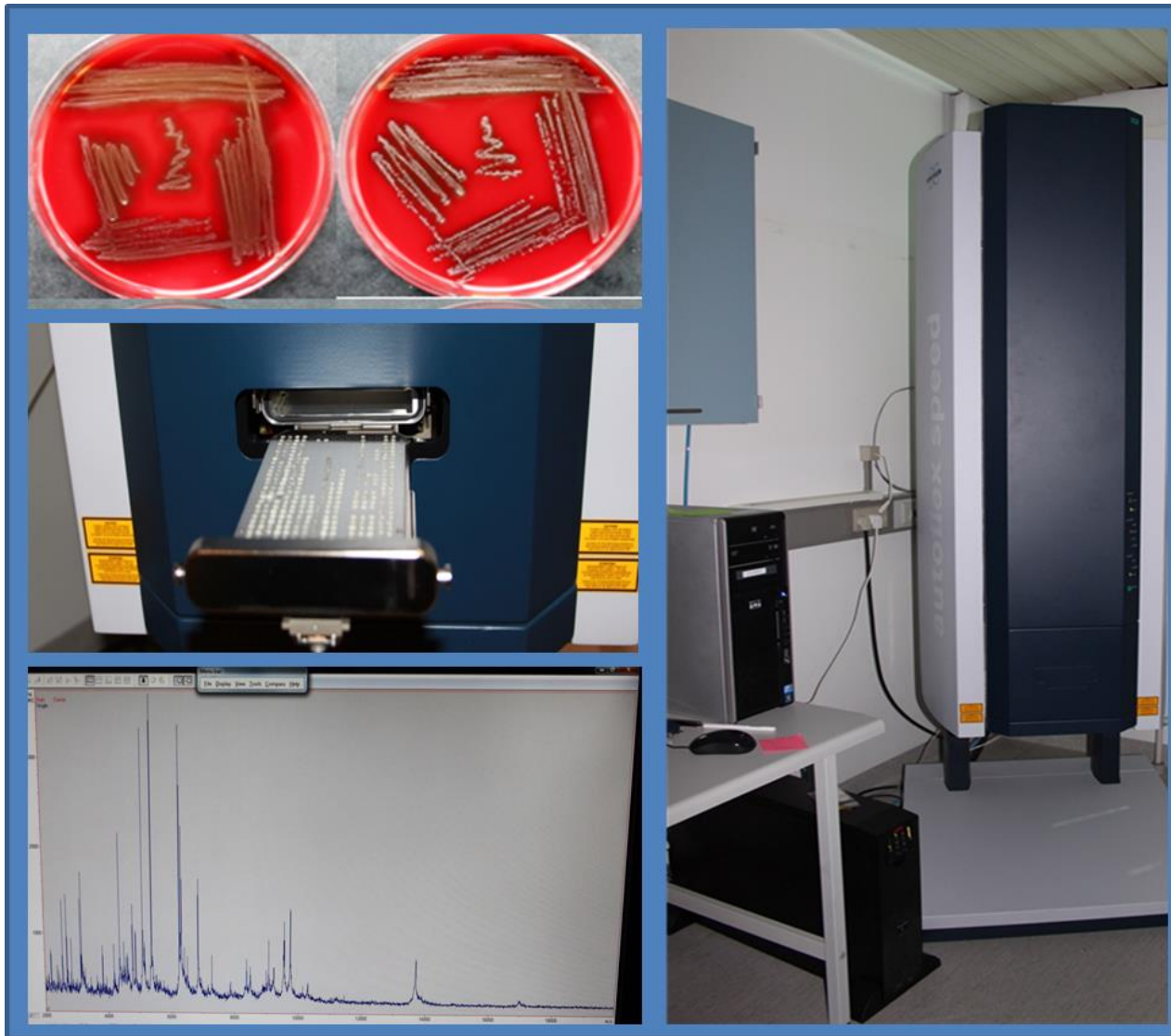


Svaber  
 Væv  
 Organer  
 Sekreter

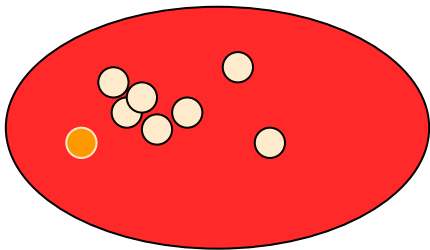
} Udpladning -inkubation



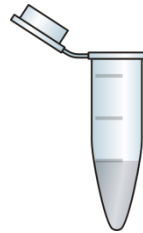
# Proces



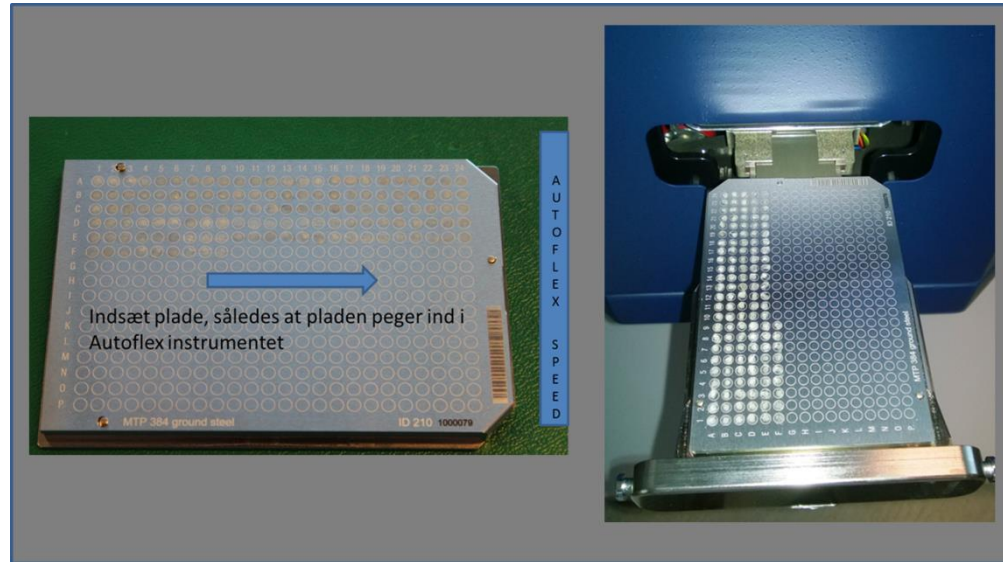
# MALDI-TOF



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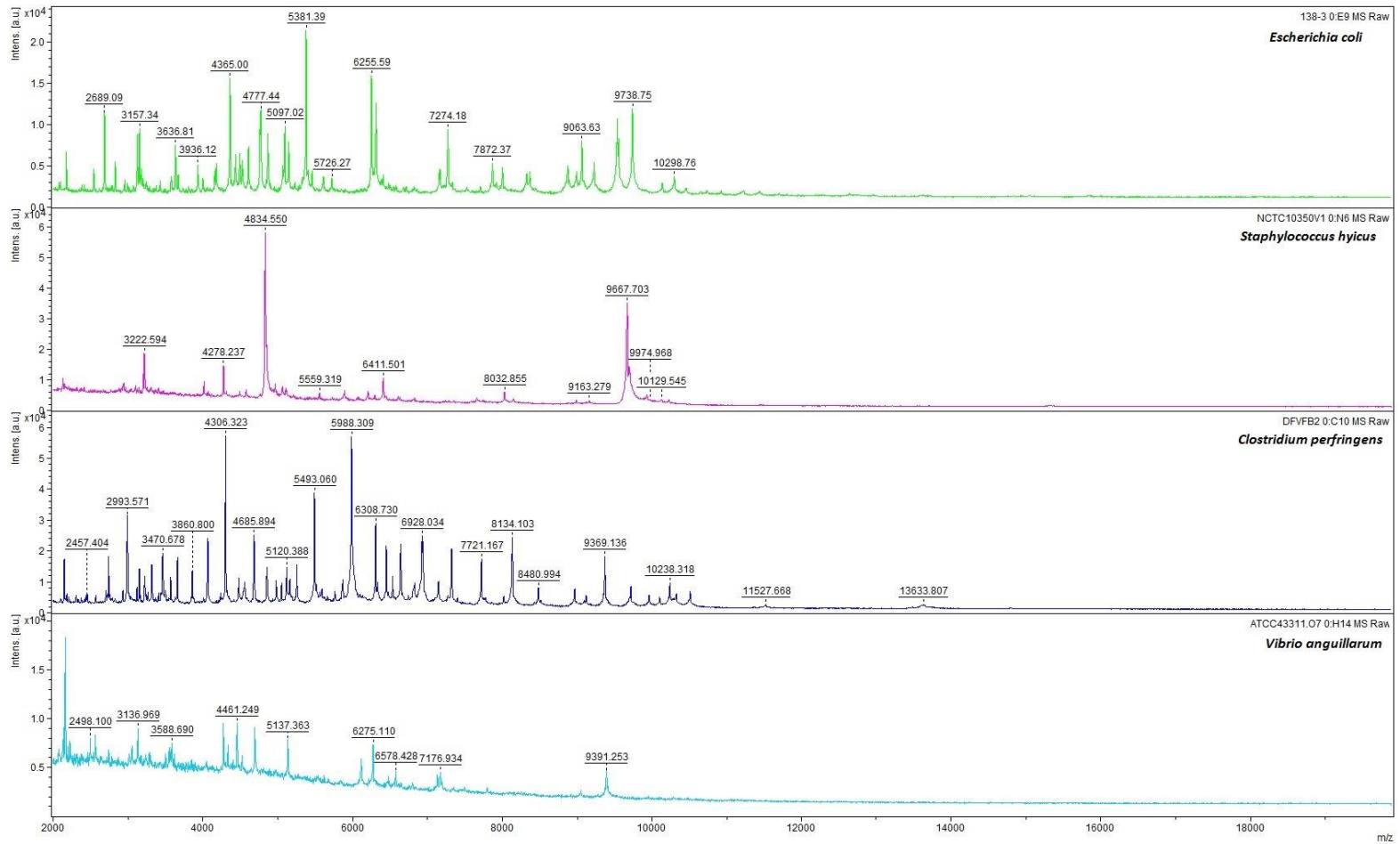
Renkultur

Matrix

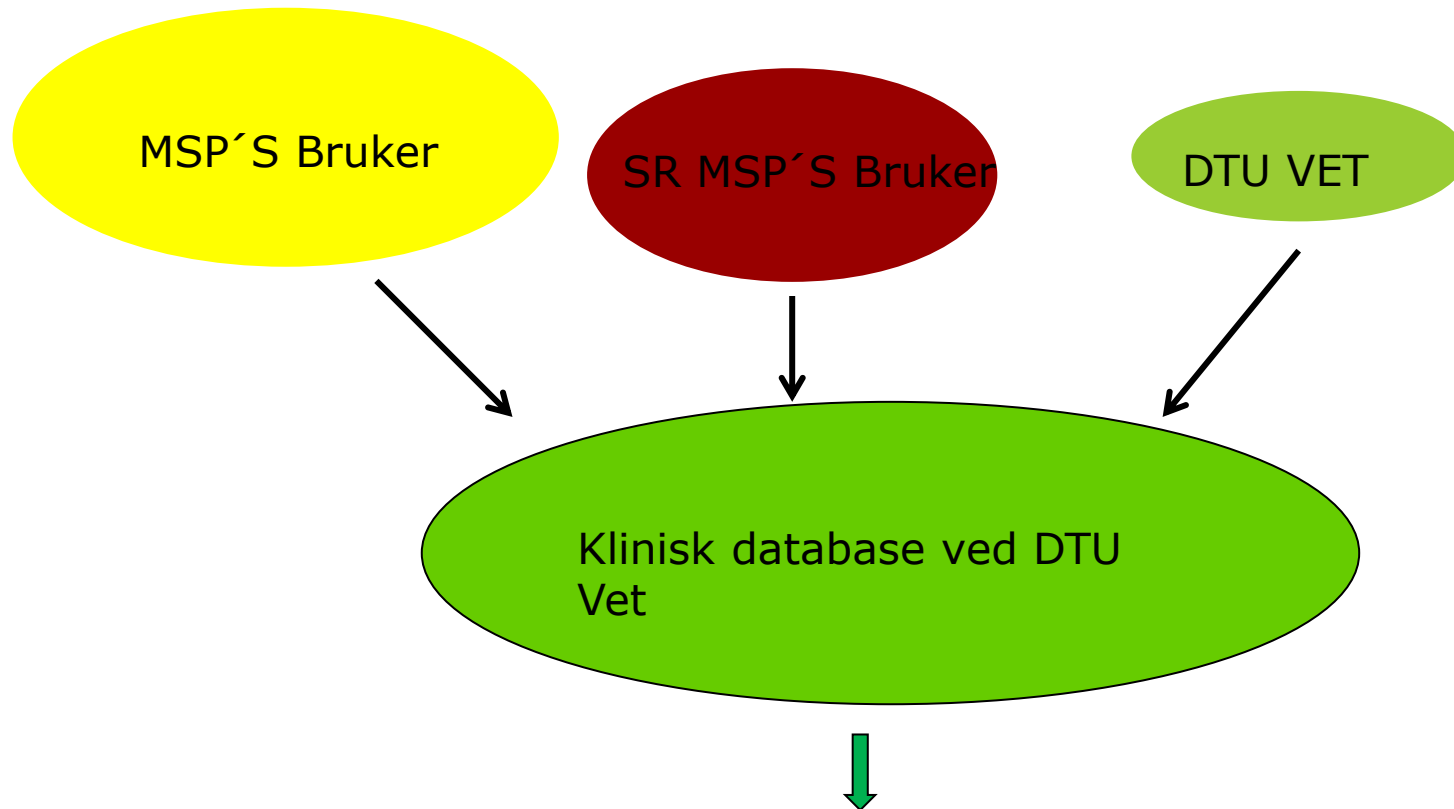
Ground steel plate

Instrument

# Spektra



# Database



**Hurtig identifikation af mikroorganismer**

# Log score for identification



Meaning of Score Values

Range	Description	Symbols	Color
2.300 ... 3.000	highly probable species identification	(+++)	green
2.000 ... 2.299	secure genus identification, probable species identification	(++)	green
1.700 ... 1.999	probable genus identification	(+)	yellow
0.000 ... 1.699	no reliable identification	(-)	red



# Bruker Daltonik MALDI Biotyper Classification Results

## Project Info:

Project Name: 20140922DIABenon  
 Project Description:  
 Project Owner: tof-user@VET-W10BKOK2  
 Project Creation Date/Time: 2014-09-22T10:19:41.806  
 Project Analyte Count: 9  
 Project Type: Development  
 Validation: not present  
 Validation Position:

## Result Overview

Analyte Name	Analyte ID	Organism (best match)	Score Value	Organism (second best match)	Score Value
<a href="#">G22</a> (++) (B)	8623-lunge	Yersinia pestis	<a href="#">2.299</a>	Yersinia pestis	<a href="#">2.29</a>
<a href="#">G23</a> (++) (B)	8623-lunge	Yersinia pestis	<a href="#">2.289</a>	Yersinia pestis	<a href="#">2.225</a>
<a href="#">G24</a> (++) (A)	8623-lunge	Yersinia pestis	<a href="#">2.184</a>	Yersinia pestis	<a href="#">2.053</a>
<a href="#">H1</a> (+++)(B)	8683-milt	Yersinia pestis	<a href="#">2.463</a>	Yersinia pestis	<a href="#">2.449</a>
<a href="#">H2</a> (+++)(B)	8683-milt	Yersinia pestis	<a href="#">2.402</a>	Yersinia pestis	<a href="#">2.377</a>
<a href="#">H3</a> (+++)(B)	8683-milt	Yersinia pestis	<a href="#">2.312</a>	Yersinia pestis	<a href="#">2.277</a>
<a href="#">H4</a> (+++)(B)	9581-lever	<a href="#">Salmonella sp.</a>	<a href="#">2.579</a>	<a href="#">Salmonella sp.</a>	<a href="#">2.561</a>
<a href="#">H5</a> (+++)(B)	9581-lever	<a href="#">Salmonella sp.</a>	<a href="#">2.503</a>	<a href="#">Salmonella sp.</a>	<a href="#">2.478</a>
<a href="#">H6</a> (+++)(B)	9581-lever	<a href="#">Salmonella sp.</a>	<a href="#">2.536</a>	<a href="#">Salmonella sp.</a>	<a href="#">2.433</a>

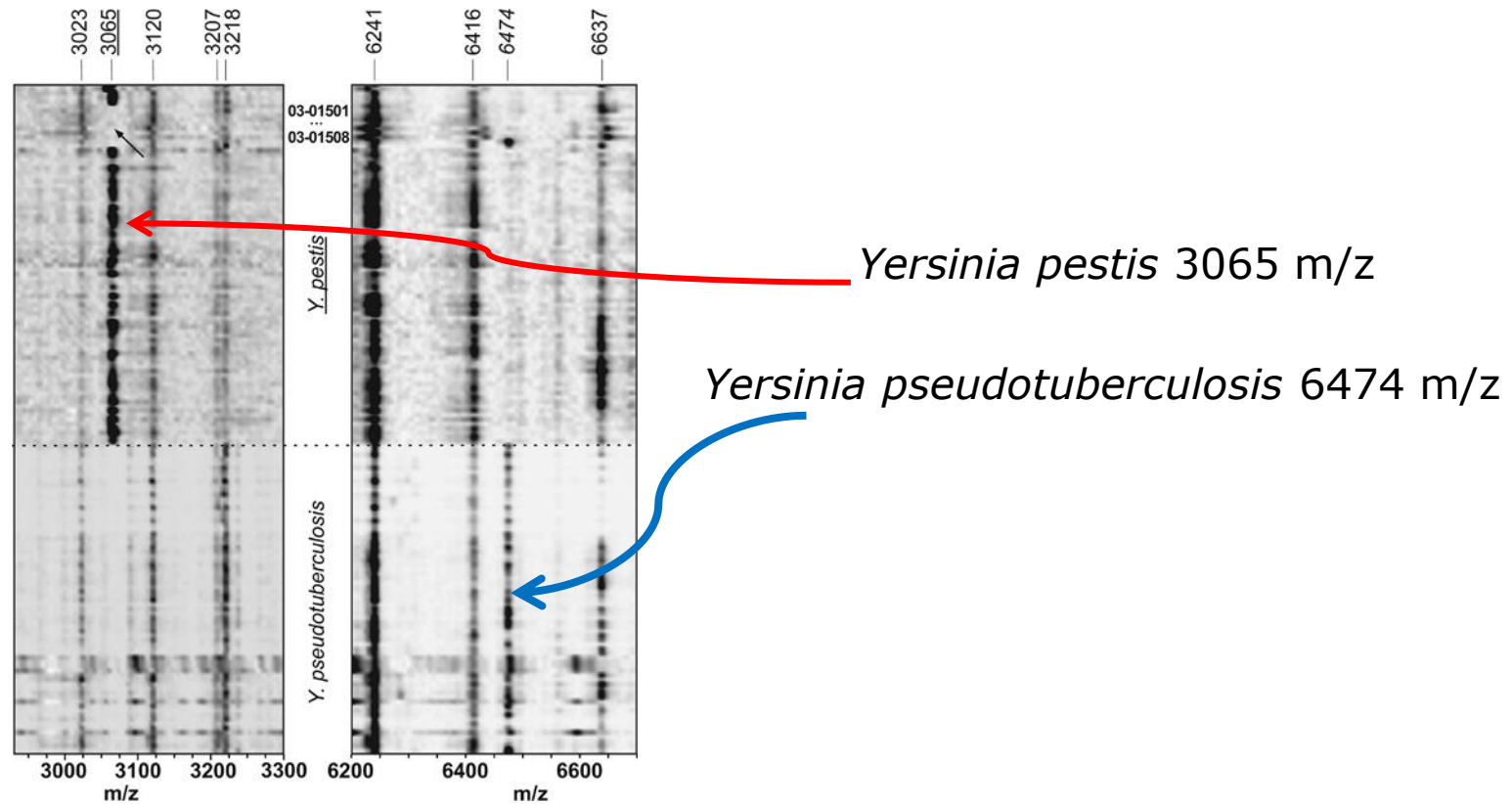


## Analyte2

Analyte Name: G23  
 Analyte Description:  
 Analyte ID: 8623-lunge  
 Analyte Creation Date/Time: 2014-09-22T10:21:25.599  
 Applied MSP Library(ies): Klinisk database 20140801  
 Applied Taxonomy Tree:

Rank (Quality)	Matched Pattern	Score Value	NCBI Identifier
1 (++)	Yersinia pestis 5923	2.289	<a href="#">632</a>
2 (++)	Yersinia pestis 10329	2.225	<a href="#">632</a>
3 (++)	<a href="#">Yersinia pseudotuberculosis Typ3 p- inv+ RKB</a>	2.178	<a href="#">633</a>
4 (++)	<a href="#">Yersinia pseudotuberculosis DSM 8992T DSM</a>	2.17	<a href="#">633</a>
5 (++)	Yersinia pestis 570	2.168	<a href="#">632</a>
6 (++)	<a href="#">Yersinia pseudotuberculosis A188_1_04_2 FLR</a>	2.145	<a href="#">633</a>
7 (++)	Yersinia pestis 2868	2.126	<a href="#">632</a>
8 (++)	<a href="#">Yersinia pseudotuberculosis CIP A1 CIP</a>	2.076	<a href="#">633</a>
9 (++)	<a href="#">Yersinia pseudotuberculosis CIP 104896 CIP</a>	2.04	<a href="#">633</a>
10 (++)	<a href="#">Yersinia pseudotuberculosis CIP 55_88 CIP</a>	2.033	<a href="#">633</a>

# Små forskelle – stor betydning



Lasch et al. 2010. Anal Chem. 82; 8464-8475