



MALDI-TOF Identification Report

MATRIX ASSISTED LASER DESORPTION/IONIZATION TIME OF FLIGHT

REPORT INTERPRETATION GUIDE

Example: Bacteria Identification

Matches:			Library version: 1/21/2011
Rank	Score	Organism	Source
1	2.276	Ralstonia pickettii	21323_1 CHB
2	1.603	Ralstonia insidiosa	029_W16 NFI
3	1.592	Ralstonia insidiosa	39x PGM
4	1.394	Comamonas aquatica	LMG 2370T HAM
5	1.383	Ralstonia mannitolilytica	LMG 6866T HAM
6	1.257	Arthrobacter sp	AP_125_4_09 ERL
7	1.227	Ralstonia insidiosa	116 RLT
8	1.201	Cupriavidus necator	DSM 531 HAM
9	1.176	Ralstonia sp	B484 UFL
10	1.172	Klebsiella pneumoniae ssp pneumoniae	9295_1 CHB

Top ten matches to a validated database

Score value is calculated by a matching algorithm used to compare protein spectral patterns.

A **Species** level match must have a score value of ≥ 2.000 and a second Species score value must be > 0.200 away from the top score. If the second Species score is < 0.200 from the top match then a **Species, Closely Related** confidence level is given, and the species that are closely related are highlighted on the report.

A **Genus** level match is assigned when the Score Value is ≥ 1.700 and < 2.000 and a second Genus score is > 0.200 away from the top score.

The **Source** information is the culture collection source that was used to make the library entry. The **Library version** is also indicated on the report.

A general **Score Value Key** is included at the bottom of the report:

Score Value Key:	
Range	Confidence Level
2.000 – 3.000	Species
2.000 – 3.000 multiple species	Species, Closely Related
1.700 – 1.999	Genus
0.000 – 1.699	No Match

Selected Papers using MALDI-TOF as an Identification Tool

Mellmann, A., F. bimet, C. Bizet, A.D. Borovskaya, R.R. Drake, U. Eigner, A.M. Fahr, Y. He, E.N. Illina, M. Kostrzewa, T. Maier, L. Mancinelli, W. Moussaoui, G. Prévost, L. Putignani, C.L. Seachord, Y.W. Tang, and D. Harmsen. 2009. High Interlaboratory Reproducibility of Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry-Based Species Identification of Nonfermenting Bacteria. J. Clin. Micro. 11:3732-3734.

Bizzini, A., C. Durussel, Bille, G. Greub, and G. Prod'homme. 2010. Performance of Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry for Identification of Bacterial Strains Routinely Isolated in a Clinical microbiology Laboratory. J. Clin. Micro. 5:1549-1554.

Seng, P., M. Drancourt, F. Gouriet, B. LaScola, P.E. Fournier, J.M. Rolain, and D. Raoult. 2009. Ongoing Revolution in Bacteriology: Routine Identification of Bacteria By Matrix-Assisted Laser Desorption Ionization Time-of-flight Mass Spectrometry. Clin. Infect. Dis. 49:543-551.