

**rapifleX MALDI TissuetyperTM**

 Specification sheet

 Part Number: # 1835000

MALDI TOF System with linear and reflector mode and ultrafast scanning Smartbeam 3D
laser for tissue typing

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| Size width: | Floor standing: 800 mm × 950 mm × 2970 mm (W×D×H) 2.62 ft × 2.95 ft × 9.8 ft  |
| Weight | 450 kg / 992 lb net weight |
| Vacuum System | one turbomolecular pump, one oilfree prevacuum pump |
| MALDI ion source  | scoutMTP II ionsource with removable and self-aligning lens-pack for maximum uptime and easy maintenance. The lens pack can be removed and inserted by operator. The complete pack can be rinsed. |
| Ion acceleration | up to +20/-20 kV |
| Laser type | BRUKER scanning smartbeam™ 3D laser, 355 nm wavelength |
| Number of shots (before maintenance) | 4\*109 shots (4 billion) |
| Laser repetition rate | Variable 1-10 kHz |
| Laser energy/pulse | ≥ 100 µJ/pulse |
| Laser focus size | Optimized laser focus of 5 µm |
| Imaging Pixel shape | Squared pixel for best tissue coverage |
| Imaging Speed | Up to 50 pixel / sec. |
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| **Linear TOF:** |  |
| Max. data acquisition speed | 10 kHz |
| Mass Resolution (Protein) | ≥ 1,200 for Cytochrome C (m/z 12,361) FWHM ≥ 600 for Protein A (m/z 44,613) FWHM |
| Mass Resolution Protein over broad mass range simultaneously measured with PAN™ technique | ≥ 700 for Insulin (m/z 5,734) FWHM≥ 1,000 for Myoglobin M2+ (m/z 8,476) FWHM≥ 1,200 for Cytochrome C (m/z 12,361) FWHM≥ 1,100 for Myoglobin (m/z 16,952) FWHM |
| MS Sensitivity | 500 fmol BSA (m/z 66,000) at S/N ≥ 100:1 shown with 1,000 laser shots |
| Mass accuracy (protein mixture) | With external calibrant: better than 60 ppmWith internal calibrant: better than 50 ppm  |
| **Reflector TOF:** |  |
| Effective flight path | >300 cm |
| Max. data acquisition speed | 10 kHz |
| Mass Resolution | ≥ 40,000 for Somatostatin 28 (m/z 3,147.47) FWHM |
| Mass Resolution over broad mass range simultaneously measured with PAN™ technique | ≥ 13,000 for Bradykinin 2-9 (m/z 904) FWHM≥ 19,000 for ACTH 1-17 (m/z 2093) FWHM≥ 25,000 for ACTH 1-24 (m/z 2,932) FWHM≥ 32,000 for ACTH 7-38 (m/z 3,657) FWHM≥ 28,000 for ACTH 1-39 (m/z 4,539) FWHM |
| Mass Resolution (protein mass range) | ≥ 25,000 for Cytochrome C (m/z 12,361) FWHM |
| MS Sensitivity | 250 amol [Glu1]-Fibrinopeptide B (m/z 1,570.7) at S/N ≥ 200:1 shown on Bruker AnchorChip™ target with 2,000 laser shots |
| Mass accuracy (peptide mixture) | ≤ 5 ppm with external calibration≤ 1.5 ppm with internal calibration |

**Optional accessory**

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| 8238978 MALDI Imaging Starter-KitIncludes: - flexImaging 4.1 SW-package - SCiLS Lab 2D (processing SW) - Set of 100 ITO slides - One MTP Slide adapter |
| #8249500 ImagePrep System |
| #1834626 Tissue Scanner |