

MassFERENCE™ P1

Refeyn's calibration standards are an essential tool for mass photometry measurements, offering maximum precision with minimum hassle. The MassFERENCE P1 protein standard is recommended for use with the TwoMP and TwoMP Auto, and is suitable to use when measuring samples containing proteins with mass ranging from 90 to 1000 kDa.

Calibrants in mass photometry

Mass photometry measures the interference between the light scattered by individual biomolecules in a sample and the light reflected by the measurement surface. As this interference scales with mass, it is possible to calculate the mass of the biomolecules in the sample from the interferometric signal by using molecules of known mass (calibrants) as a reference. As each biomolecule type (proteins, nucleic acids, lipids, etc.) has a different refractive index, the calibrant and the sample must be of the same type to maximize mass conversion accuracy.

Refeyn's calibration solutions

To expedite and optimize calibrant selection, Refeyn offers MassFERENCE, a line of calibration standards. MassFERENCE calibrants cover broad molecular mass ranges and are compatible with a wide range of standard buffers. They are ready to use out of the box, requiring only a simple dilution.

Refeyn MassFERENCE calibration standards are simple to prepare and provide a standardized reference to increase replicability across experiments, instruments and labs.

MassFERENCE P1

The MassFERENCE P1 standard is designed to calibrate mass photometry measurements of proteins with molecular masses ranging from 90 to 1000 kDa. It is recommended for use with the TwoMP and TwoMP Auto mass photometers. This calibrant contains a standard protein with several oligomeric forms ranging from 86 to 344 kDa (Fig. 1). It comes in a box containing three 50 μ L aliquots of calibrant (Fig. 2).

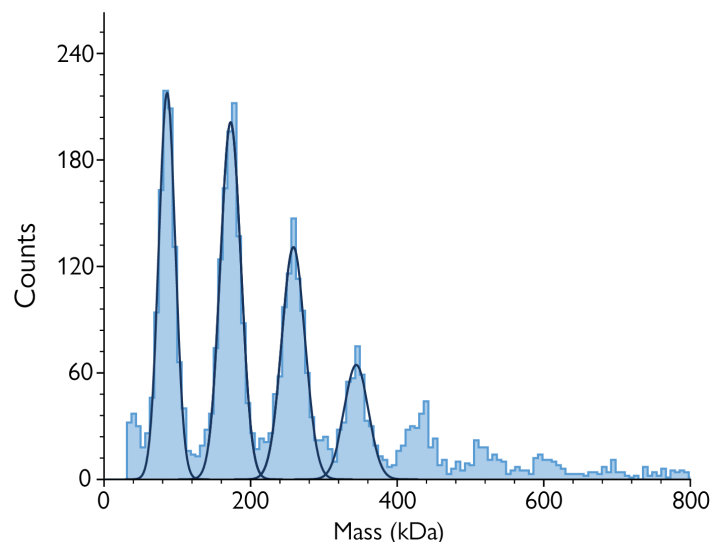


Fig. 1 MassFERENCE P1 mass distribution in PBS. Expected peak values are at 86, 172, 258 and 344 kDa.



Fig. 2 The MassFERENCE P1 protein calibrant. MassFERENCE P1 calibrants come in a box containing three 50 μ L aliquots of calibrant.

Technical specifications and usage

Mass peaks: 86, 172, 258, 344 kDa*

*For optimal calibration, select three or more peaks with >100 counts each or use the automatic calibration software feature

Recommended sample range: 90 – 1000 kDa

Contents: 3 x 50 μ L aliquots

Storage: Store at -20 °C, stable for 6 months.

Aliquot 10 x 5 μ L upon first thaw for best results.

These frozen aliquots are stable at -20° for 6 months.

Thawed, working dilutions are stable for 24 hours at room temperature.

To use: For detailed usage instructions, download the consumables user guide available at [Refeyn.com](https://www.refeyn.com)

How to buy: The MassFERENCE P1 calibrant for the TwoMP and TwoMP Auto is available for purchase as **(MP-CON-41033)**

Related products

To optimize mass photometry measurements, Refeyn provides MassGlass™ UC sample carrier slides, available in sample preparation kits for the TwoMP **(MP-CON-21022)** and for the TwoMP Auto **(MP-CON-21023)**.

To facilitate slide placement, Refeyn provides sample alignment kits for the TwoMP **(MP-CON-21019)** and for the TwoMP Auto **(MP-CON-21020)**.

For more information, visit the [Refeyn website](#) or send an inquiry to orders@refeyn.com.