PRODUCT DATA

Separations | Protease column

Optimized for HDX workflows

ProDx consumables are specifically designed and developed for use with the LEAP HDX platform.

The ProDx Protease column is optimized to perform at 0°C, the ideal temperature for performing HDX reactions.

Improved protease coupling reduces carryover from non-specific binding, while lower backpressures minimize the potential for contamination and overpressure leakage.

When used in combination with the new LEAP HDX valve system, it can be backflushed automatically to remove frit-loaded or undigested intact material. Clean columns give consistent retention times, overcoming traditional issues with non-selective binding and poor reproducibility.

To ensure confidence in your data, combine the ProDx Protease and trap columns for your HDX work.

Features and benefits

- Improve workflow efficiencies and reduce instrument downtime
- Low temperature operation optimized at 0°C
- Lower carryover and increased desalting efficiency
- High pressure hardware designed for continuous use at 20,000 psi (1,379 bar)
- More overlapping fragments for high confidence data
- Automated backflushing when used with the LEAP HDX system

Recommended applications

Automated Hydrogen-Deuterium Exchange (HDX) experiments using the LEAP HDX platform.

Product specifications

ProDx columns were developed specifically for use with the LEAP HDX system. Packed in bio-inert stainless steel glass lined columns to withstand high pressure digestion practices, making it compatible with other systems.

- ID configuration: 2.1 mm
- Length configuration: 30 mm

The ProDx Protease (Pepsin) column is the first in a range of immobilized Protease columns available from Trajan. The initial intended use is with the LEAP HDX workflow, where these columns are used in-line for protein-protein and protein-ligand studies. The columns can be deployed outside of the HDX workflow as appropriate, possible alternate configurations might include general proteomics workflows, protein purification studies and QC applications. Column chemistry is such that limited exposure to common denaturing reagents and quenching salts (such as 6.4M Guanidine Hydrochloride, 8M Urea and 4M TCEP) do not adversely impact proteolytic performance.

ProDx Protease (Pepsin) columns are delivered chilled for optimal performance. Columns need to be maintained between 2-8°C. Column performance can be reduced if the column is maintained and operated above 15°C for extended periods of time, or if exposed to non-acidified aqueous reagents or organic reagents.

Phase	Pore size (Å)	Particle size (µm)
Protease (Pepsin)*	500-10,000 Å	20 µm

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