

Product Information

Universal Proteomics Standard 3

Protein Mass Spectrometry Calibration Standard,
non-human

Catalog Number **UPS3**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

TECHNICAL BULLETIN

Product Description

Universal Proteomics Standard 3 (UPS3) is a mixture of 8 non-human proteins at 4 orders of magnitude. It is intended to be useful as a quantitative reference standard for samples containing human proteins and analyzed by mass spectrometry.

The proteins were screened for limited human homology *in silico*, and tested by peptide mapping to ensure little or no interference with human samples.

A FASTA file, which contains the protein sequences and can be appended to any database, is available on the UPS3 product display page.

Component

Each vial contains eight non-human, lyophilized proteins ranging from 100 picomoles to 0.1 picomoles.

Total protein content is $\sim 8\text{ }\mu\text{g}$ as determined by UV.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The preparation procedure should be compatible with the analysis to be performed. For LC-MS peptide analysis, reduction, alkylation, and tryptic digestion are suggested. Recommended protocols are available in the bulletins for products EMS0004 (SOLu-Trypsin) and MSKT0002 (SOLu-Trypsin Rapid Digestion Kit).

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$. After reconstitution and/or digestion, aliquot if desired and store frozen. Multiple freeze-thaws are not recommended.

JAB,MAM 12/19-1

Appendix - Protein Table

Name	Source	UniProt #	Amino Acids	pmol/vial	MW (Da)	ng/vial	% of total mass
Chloroperoxidase	<i>Caldariomyces fumago</i>	P04963	21–319	100	38,392 (42,065)*	4,208	53.6%
Lysostaphin	<i>Staphylococcus staphylolyticus</i>	P10547	248–493	100	26,944	2695	34.3%
Pyruvate Oxidase	<i>Aerococcus sp.</i>	A9X9K8	1–591	10	65,362	654	8.33%
Lectin	<i>Canavalia ensiformis</i>	P02866	164–281 + 30–148	10	25,598	256	3.26%
α -Lactalbumin	bovine milk	P00711	20–142	1	14,178	14	0.18%
Lysozyme	chicken egg white	P00698	19–147	1	14,305	14	0.18%
PNGase F	<i>Elizabethkingia meningoseptica</i>	P21163	41–354	0.1	34,774	3.6	0.046%
Carbonic Anhydrase	bovine erythrocytes	P00921	2–260	0.1	29,025	2.9	0.037%

* Chloroperoxidase has several glycosylation sites, the observed weighted average MW of this protein is 42,065 Da.