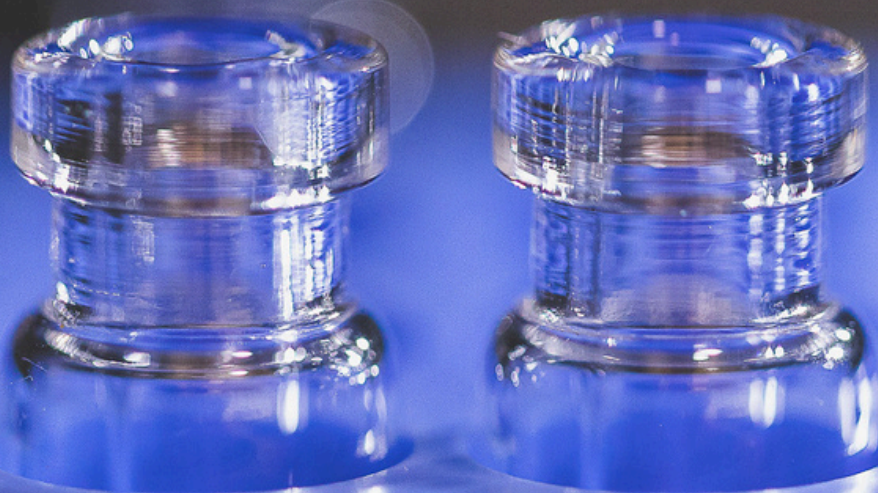


2024

Catalog

promise  
ADVANCED PROTEOMICS

# SIL-PROTEINS FOR TARGETED LC-MS QUANTIFICATION



The gold standard for robust and reliable quantitative LC-MS workflow

[www.promise-proteomics.com](http://www.promise-proteomics.com) | [contact@promise-proteomics.com](mailto:contact@promise-proteomics.com)

# SIL-PROTEINS

Promise Proteomics is a pioneer and an expert in the development of mass spectrometry-based quantification methods and in bioproduction of Stable Isotope Labelled (SIL) proteins

## Why use our SIL-proteins ?

A stable isotope labelled (SIL) form of an analyte protein is widely regarded as the optimal internal standard<sup>1</sup> for absolute quantification of proteins using LC-MS.

SIL-proteins correct bias (due to losses, incomplete digestion, adsorption, proteolysis...) occurring during the preparation and analytical workflow. With SIL-proteins, the accuracy and reproducibility of your quantification data is improved.

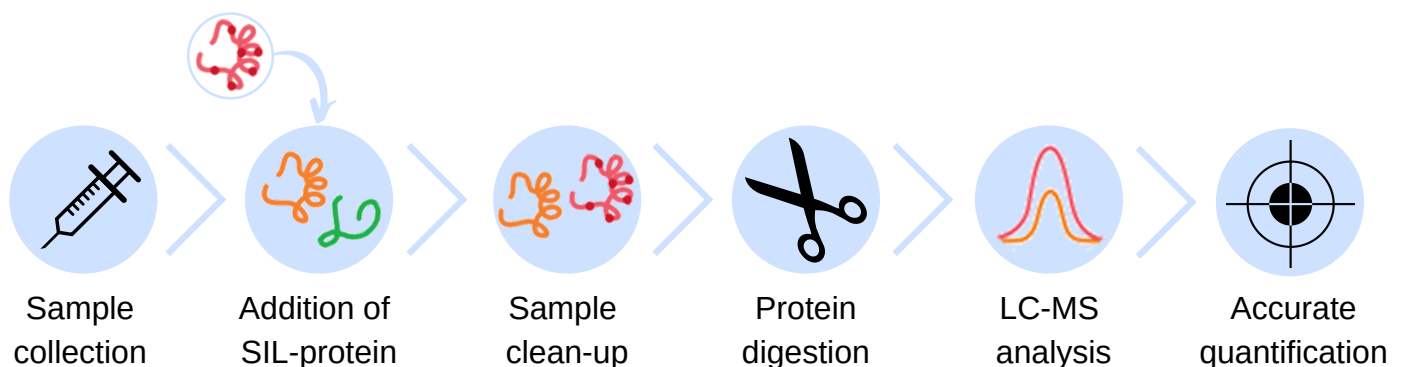
This product is useful for :

- Bioanalysis pharmacokinetics studies (clinical & nonclinical),
- Research and Discovery/pre-clinical/clinical drug development
- Biomarker's quantification

## Characteristics

- **Full length recombinant proteins**
- **Identical to the protein of interest**, same sequence as native protein
- **High isotopic incorporation, stability and purity**
- **Uniform (U<sup>15</sup>N) or specific labelling on Arg, Lys residues ( <sup>13</sup>C<sup>15</sup>N isotope)**
- **Unlabelled option available**

## How to use it ?



Unlike the use of SIL-peptides, Promise's SIL-proteins are processed along with the target analytes throughout the pre-analytical and LC-MS workflow thus improving robustness and quality of the quantitative data.

1. Todoroki, K. *et al.* (2020, février). Bioanalytical methods for therapeutic monoclonal antibodies and antibody–drug conjugates : A review of recent advances and future perspectives. *Journal of Pharmaceutical and Biomedical Analysis*, 179, 112991. <https://doi.org/10.1016/j.jpba.2019.112991>

# OFF-THE-SHELF PRODUCTS

SIL-proteins\* are available to support your studies and clinical trials

HUMAN PROTEINS	LABELLED		UNLABELLED
	LABELLING	REFERENCES	REFERENCES
<b>Neurodegenerative diseases biomarkers</b>			
Apolipoprotein E3	U <sup>15</sup> N	<a href="#">AP237306</a>	<a href="#">AP237300</a>
Neurofilament	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">NF169531</a>	<a href="#">NF169530</a>
Synuclein alpha	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">SY865402</a>	<a href="#">SY865400</a>
Synuclein beta	U <sup>15</sup> N	<a href="#">SY875286</a>	
Synuclein gamma	U <sup>15</sup> N	<a href="#">SY925246</a>	
Tau 441	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">TA928521</a>	<a href="#">TA928520</a>
Tau 352	U <sup>15</sup> N	<a href="#">TA247576</a>	
<b>Cardiovascular diseases biomarkers</b>			
Apolipoprotein A1	U <sup>15</sup> N	<a href="#">AP176846</a>	<a href="#">AP176840</a>
Carboxypeptidase B2	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">CP618731</a>	
Clusterin protein	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">CL118321</a>	
NT-proBNP	U <sup>15</sup> N	<a href="#">BN045556</a>	<a href="#">BN045550</a>
Troponin I	U <sup>15</sup> N	<a href="#">TN946116</a>	
<b>Metabolic biomarkers</b>			
Albumin	U <sup>15</sup> N	<a href="#">AL170196</a>	
Cystatin C	U <sup>15</sup> N	<a href="#">CY725606</a>	<a href="#">CY725600</a>
Vitamin D binding Protein	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">DB128581</a>	
<b>Cancer biomarkers</b>			
Alpha Feto Protein	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">AF099901</a>	
KRAS 2A	U <sup>15</sup> N	<a href="#">RA105856</a>	<a href="#">RA105850</a>
KRAS 2B			<a href="#">RA115550</a>
KRAS 2B G12C mutant	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">RA117051</a>	<a href="#">RA117050</a>
KRAS 2B G12C/C118A mutant			<a href="#">RA119550</a>
KRAS 2B G12C/C51S/C80L/C118S mutant			<a href="#">RA113970</a>
KRAS 2B G12D mutant	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">RA117061</a>	
KRAS 2B G13C mutant	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">RA117381</a>	
KRAS 2B G13D mutant	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">RA117391</a>	
NRAS	U <sup>15</sup> N	<a href="#">RA985806</a>	<a href="#">RA985800</a>
PD1	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	Upon request	
PDL1	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	Upon request	
<b>Peptidic hormones</b>			
Choriogonadotropin	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">CG115931</a>	
Erythropoietin	(Arg,Lys) <sup>13</sup> C <sup>15</sup> N	<a href="#">EP085791</a>	
Growth hormone 22	U <sup>15</sup> N	<a href="#">GH596296</a>	<a href="#">GH596290</a>
<b>Sepsis biomarkers</b>			
Procalcitonin	U <sup>15</sup> N	<a href="#">PC675516</a>	<a href="#">PC675620</a>

\*for Research Use Only

## Is your SIL-protein of interest not listed?

For 10 years, with more than 150 proteins produced, Promise Proteomics offers **customized bioproduction options**.  
Contact us for further information.



✉ [contact@promise-proteomics.com](mailto:contact@promise-proteomics.com)

# REFERENCES

Peer reviewed publications using our SIL-proteins

- **Laboratoire National de Métrologie et d'Essais (LNE)**

Giangrande, C. *et al.* (2023). Development of a candidate reference measurement procedure by ID-LC-MS/MS for total TAU protein measurement in cerebrospinal fluid (CSF). *Clinical Chemistry and Laboratory Medicine*, 61(7), 1235-1244. <https://doi.org/10.1515/cclm-2022-1250>

- **Janssen**

Bijttebier, S. *et al.* (2023). IP-LC-MSMS enables identification of three TAU O-GLCNAcylation sites as O-GLCNAcase inhibition pharmacodynamic readout in transgenic mice overexpressing human TAU. *Journal of Proteome Research*, 22(4), 1309-1321. <https://doi.org/10.1021/acs.jproteome.2c00822>

- **Washington University School of Medicine**

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- **INSERM**

Pons, M. *et al.* (2023). Absolute quantification of synuclein proteoforms in plasma in patients with synucleinopathies by LC-MRM mass spectrometry. *medRxiv (Cold Spring Harbor Laboratory)*. <https://doi.org/10.1101/2023.07.17.23292753>

- **Merck**

Johns, D. G. *et al.* (2023). Orally bioavailable macrocyclic peptide that inhibits binding of PCSK9 to the low density lipoprotein receptor. *Circulation*, 148(2), 144-158. <https://doi.org/10.1161/circulationaha.122.063372>

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Smeijsters, E. H. E. *et al.* (2023). Optimization of a quantitative Anti-Drug Antibodies against Infliximab assay with the liquid Chromatography-Tandem Mass Spectrometry : A Method Validation Study and Future Perspectives. *Pharmaceutics*, 15(5), 1477. <https://doi.org/10.3390/pharmaceutics15051477>

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- **Johns Hopkins University**

Smith, J. W. *et al.* (2023). Global discovery and Temporal changes of human albumin modifications by Pan-Protein adductomics : Initial application to air pollution exposure. *Journal of the American Society for Mass Spectrometry*, 34(4), 595-607. <https://doi.org/10.1021/jasms.2c00314>

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- **Washington University School of Medicine**

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- **AstraZeneca**

Kantae, V. *et al.* (2022). Accelerating the Validation of Endogenous On-Target Engagement and In-cellulo Kinetic Assessment for Covalent Inhibitors of KRASG12C in Early Drug Discovery. *bioRxiv*. <https://doi.org/10.1101/2022.02.17.480880>