

## Product description



**Product name** Human Cystatin C  
SIL-protein



**Catalog number** CY725606

**Uniprot ID** P01034

Human Cystatin-C (Cys-C) is a cysteine protease protein. Its dosage is an index of renal function and can be used to evaluate the glomerular filtration rate.

Labelled Cys-C is a recombinant protein, stable isotope labelled (SIL), designed for use as an internal standard for quantitative analysis of Cys-C by mass spectrometry (MS).

**Synonyms:** Cystatin-3, Gamma-trace, Neuroendocrine basic polypeptide, post-gamma globulin

## Protein sequence

MSSPGKPPRLVGGPMDASVEEEGVRRALDFAVGEYNKASNDMYHSRALQVVRARKQIVAGVNYFLDVELGRITCTKTQPNLDNCPFHDQP  
HLKRKAFCSFQIYAVPWQGTMTLSKSTCQDA

## Product features and protocols

### Key features

- 1 Purity >95%  
as determined by SDS-PAGE
- 2 Labelling Uniform-<sup>15</sup>N
- 3 Isotopic incorporation >99%  
as determined by LC-MS/MS  
analysis of digested SIL-protein

### Other features

Predicted MW	15.7 kDa
Expression System	<i>E.coli</i>
Purification Tag	No tag
Protein content	Quantification is carried out by Bradford protein assay.
Formulation	Lyophilized from 25 mM MES, 80 mM NaCl pH=6.0 buffer.

## Product preparation

For product preparation we recommend the following steps:

1. Briefly centrifuge the tube before opening
2. Reconstitute by adding the appropriate volume of ultrapure water for a final concentration of 200 µg/ml (e.g. 50 µl for 10 µg or 250 µl for 50 µg conditioning)
3. Vortex gently to insure complete dissolution
4. Wait 15 minutes at room temperature before proceeding further
5. Vortex gently again and centrifuge briefly

## Product storage

The product is lyophilized and shipped at room temperature. **Store at -80 °C upon receipt.**

After reconstitution, the protein can be preserved at 4°C for a few weeks.

### Avoid multiple freeze-thaw cycles

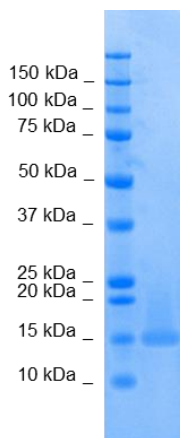
## How to use our product



SIL proteins allow to overcome the process variability since they are added at the very beginning of a sample preparation. This has potential positive impact on your analyte quantification, especially if the analyte interacts with other species commonly present within the matrix (1).



## Supporting information



SDS-PAGE gel analysis of Cys-C protein in Reduced/Heated conditions (RH) and stained with Coomassie blue.

## References

1. **G.Picard, D. Lebert, et al.** PSAQ standards for accurate MS-based quantification of proteins: from the concept to biomedical applications, *J. Mass Spectrom.* 2012, 47, 1353-1363



The product is intended for research use only. Not for diagnostic or therapeutic use.

## Legal

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