

Product description

Human apolipoprotein E3 (APO-E3) was initially described as a lipid transport protein. Since then the role in several disease has been highlighted for all the three isoforms of Apo E (E2,E3, and E4). These isoforms differ for a single amino acid among each other with Apo E4 mainly involved in neurodegenerative diseases such as Alzheimer's disease (1).

Labelled APO-E3 is a recombinant protein, stable isotope labelled (SIL), designed for use as an internal standard for quantitative analysis of APO-E3 by mass spectrometry (MS).



Product name Human APO-E3 SIL-protein



Catalog number AP237306

Uniprot ID P02649

Protein sequence

GKVEQAVETEPEPELRQQTEWQSGQRWELALGRFWDYLRWVQTLSEQVQEELLSSQVTQELRALMDETMKELKAYKSELEEQLTPVAEETR
ARLSKELQAAQARLGADMEDVCGRLVQYRGEVQAMLGQSTEEELRVRLASHLRKLRKLLRDADDLQKRLAVYQAGAREGAERGLSAIRERLG
PLVEQGRVRAATVGLAGQPLQERAQAWGERLRARMEEMGSRTRDRLDEVKEQVAEVRKLEEQAAQQIRLQAEAFQARLKSWFPEPLVED
MQRQWAGLVEKVQAAVGTSAAPVPSDNH

Product features and protocols

Key features

- 1** Purity >90% as determined by SDS-PAGE
- 2** Labelling Uniform-¹⁵N
- 3** Isotopic incorporation >99% as determined by LC-MS/MS analysis of digested SIL-protein

Other features

Predicted MW	34.29 kDa
Expression System	<i>E. coli</i>
Purification Tag	No tag
Protein content	Quantitation is carried out by Bradford protein assay using BSA as standard.
Formulation	Lyophilized from 50 mM Tris HCl, 300 mM NaCl, 1 mM DTT, pH=8.0 buffer.

Product preparation

For product preparation we recommend the following steps:

- Briefly centrifuge the tube before opening
- 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)
- Vortex gently to insure complete dissolution
- Wait 15 minutes at room temperature before proceeding further
- Vortex gently again and centrifuge briefly

Product storage

The product is lyophilized and shipped at ambient 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

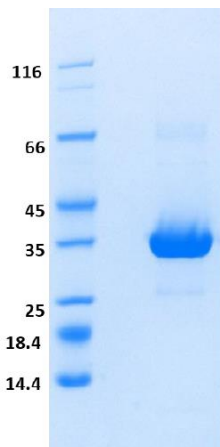
How to use our product



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 (2).



Supporting information



SDS-PAGE gel analysis of APO-E3 protein in Reduced/Heated conditions and stained with Coomassie blue.

References

1. **R. W. Mahley**, Apolipoprotein E: from cardiovascular disease to neurodegenerative disorders *J Mol Med (Berl)*. 2016 Jul;94(7):739-46
2. **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.

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