

Product description



Product name human HSA SIL-protein



Catalog number AL170196

Uniprot ID P02768

Human serum albumin (HSA) protein, the most abundant protein in human blood, functions in the regulation of blood plasma colloid osmotic pressure and acts as a carrier protein for a wide range of endogenous molecules including hormones, fatty acids, and metabolites, as well as exogenous drugs.

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

Protein sequence

DAHKSEVAHRFKDLGGEENFKALVLI AFAQYLQQCPFEDHVKLVNEVTEFAKTCVADESAENCDKSLHTLFGDKLCTVATLRETYGEMADCCAK QEPERNECFLQHKDDNPNL PRLVRPEVDVMCTAFHDNEETFLLKKLYEIAARRHPYFYAPPELLFFAKRYKAAAFTECCQAADKAAACLLPKLDELRD E GKASSAKQRLK CASLQKFGERAFKAWAVARLSQRFPKAEFAEVS KLVTDLTKVHTECCHGDLL ECADDRADLAKYICENQDSISSK LKECCEKP LLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKDVF LGMFLYEYARRHPDYSV VLLLRLAKTYETTLEKCCAAADPHECYAKVFDEF KPLVEEPQNLIKQNC ELFQ LGEYKFNALLVRYTKKVPQVSTPTLVEVSRNLGKVGSKCKHPEAKRMPCAEDYLSVVLNQLC VLVHEKTPVSD RVTKCCTESLVNRRPCFSALEVDETYVPKEFNAETFTFHADICTLSEKERQIKKQ TALVELVKHKPKATKEQLKAVMDDFAAFVEKCKKADDKET CFAEEGKKLVAASQAALGL

Product features and protocols

Key features

- 1** Purity >95% 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	67 kDa
Expression System	<i>P. pastoris</i>
Purification Tag	No tag
Protein content	Determined by Bradford assay with BSA as standard
Formulation	Lyophilized from 20 mM Tris pH=7.4; 100 mM NaCl 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

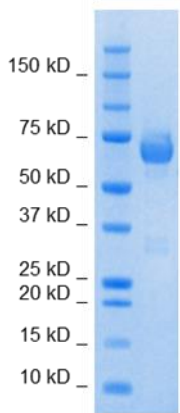
How to use our product



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 (1).



Supporting information



SDS-PAGE gel analysis of HSA 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.

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