



Product name Human DBP SIL-Protein



Catalog number DB128581

Uniprot ID P02774

Product description

Human Vitamin D binding (DBP) protein has many physiologically important functions, ranging from transporting vitamin D, binding and sequestering globular actin and binding fatty acids to possible roles in inflammation and in the immune system.

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

Synonyms: VDB, Gc protein-derived macrophage factor , Gc-globulin, Vitamin D-binding protein-macrophage activating factor

Protein sequence

LERGRDYEKNKVCKEFSLHGKEDFTSLSLVLYSRKFPSPGTFEQVSQLVKEVVSLEACCAEGADPCYDTRTSALSAKSCESNSPFPVHPGTAEC
CTKEGLERKLCMAALKHQPEFTYVEPTNDEICEAFRKDPKEYANQFMWEYSTNYGQAPLSLLVSYTKSYLSMVGSCCTSASPTVCFKLERLQ
LKHLSLTTLNLRVCSQYAAAYGEKKSRLSNLIKLAQKVPTADLEDVPLAEDITNLSKCCESASEDCMAKELPEHTVKLCDNLSTKNSKFEDCCQE
KTAMDFVCTYFMPAAQLPELPDVELPTNKDVCDPGNTKVMKDYFELSRRTHLPEVFLSKVLEPTLKLGLGECDDVEDSTTCFNAKGPLLKEL
SSFIDKGQELCADYSENTFTEYKKAERLKAKLDPATPKELAKLVNKRSDFASNCCSINSPPLYCDSEIDAELKNILHHHHHHHH

Product features and protocols

Key features

- 1** Purity >90% as determined by SDS-PAGE
- 2** Labelling Arg-¹³C₆, ¹⁵N₄ | Lys-¹³C₆, ¹⁵N₂
- 3** Isotopic incorporation >99% as determined by LC-MS/MS analysis of digested SIL-protein

Other features

| | |
|-------------------|--|
| Predicted MW | 52.3 kDa |
| Expression System | <i>E.Coli</i> |
| Purification Tag | PolyHis tag at the C-terminus end |
| Protein content | Determined by BCA assay with BSA as standard |
| Formulation | Lyophilized from PBS 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 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

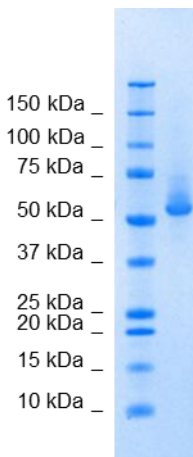
How to use our product



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 DBP 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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