

## Product description

Human Erythropoietin (EPO) is a glycoprotein hormone secreted by bone marrow and stimulating red blood cells production. Recombinant human EPO is used in clinical treatment of anemia in chronic kidney disease (CKD) and is misused for blood doping in endurance sports for improving athlete's performance. Labelled EPO is a recombinant protein, stable isotope labelled (SIL), designed for use as an internal standard for quantitative analysis of EPO by mass spectrometry (MS).

**Synonyms:** EPO, Epoetin



**Product name** Human EPO SIL-protein



**Catalog number** EP085791

**Uniprot ID** P01588

## Protein sequence

APPRLICDSRVLERYLLEAKEAENITTGCAEHCSLNENITVPDTKVNFYAWKRMEVGGQQAQVEVWQGLALLSEAVLRGQALLVNSSQPWEPLQ  
LHVDKAVSGLRSLTLLRALGAQKEAISPPDAASAAPLRTITADTFRKLFVYSNFLRGKCLKLYTGEACRTGDHHHHHH

## Product features and protocols

### Key features

- 1** Purity >90% as determined by SDS-PAGE
- 2** Labelling Arg-<sup>13</sup>C<sub>6</sub>, <sup>15</sup>N<sub>4</sub> | Lys-<sup>13</sup>C<sub>6</sub>, <sup>15</sup>N<sub>2</sub>
- 3** Isotopic incorporation >99% as determined by LC-MS/MS analysis of digested SIL-protein

### Other features

|                   |   |
|-------------------|---|
| Predicted MW      | 18.4 kDa (apparent MW 35-40 kDa due to glycosylation) |
| Expression System | CHO (Chinese Hamster Ovary) cell line                 |
| 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 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**

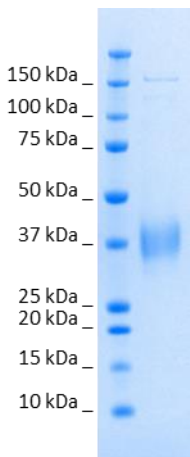
## How to use our product



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 EPO 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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