



**Product name** ADALIMUMAB  
Labelled standard



**Catalog number** HUU05211

## Product description

Labelled Adalimumab is a recombinant, full length stable isotope labelled monoclonal antibody designed for use as an internal standard for quantitative analysis of Adalimumab in plasma samples. Adalimumab targets human TNF- $\alpha$  and is used for the treatment of rheumatoid arthritis and other chronic autoimmune diseases.

**Similar products:** Labelled Infliximab, Labelled Etanercept, Labelled Rituximab

## mAb sequence

### Heavy chain

EVQLVESGGGLVQPGRSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSITWNSGHIDYADSVVEGRFTISRDNKNSLYLQMNSLRAE  
DTAVYYCAKVSYLSTASSLDYWGQGLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSG  
LYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPE  
VKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTKAKAGQPREPQVYTLPPSRDELTKNQV  
LTLCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSSVMHEALHNHYTQKLSLSLSPGK

### Light Chain

DIQMTQSPSSLSASVGDRTITCRASQGIRNYLAWYQQKPKGAPKLLIYAASLTQSGVPSRFSGSGSGTDFTLTISLQPEDVATYYCQRYNRA  
PYTFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTSKADYEK  
HKVYACEVTHQGLSPVTKSFNRGEC

## Product features and protocols

### Key features

- 1** Purity >95%  
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-mAb

### Other features

Expression System	Mammalian cells
Protein content	Quantitation is carried out by UV Absorbance at 280 nm
Formulation	Lyophilized from buffer: 7.6 mM Sodium citrate; 14.1 mM Sodium Phosphate; 1.2% Mannitol 1% Sucrose 0.01% Polysorbate 80.

### 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  $\mu$ g/ml (e.g. 50  $\mu$ l for 10  $\mu$ g or 250  $\mu$ l for 50  $\mu$ g)
- 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.**

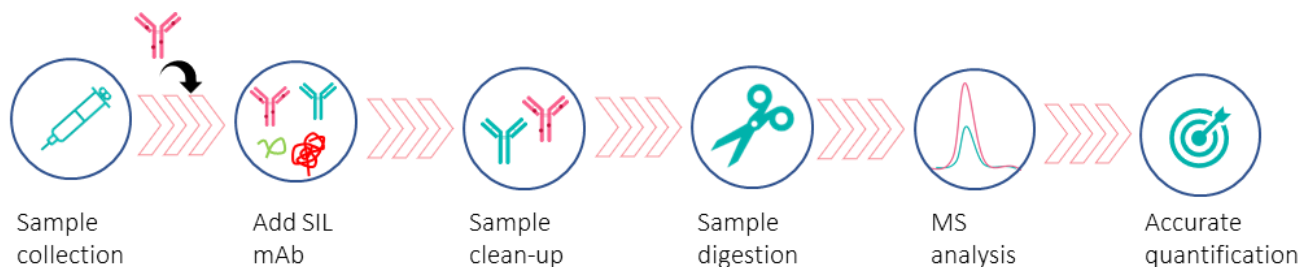
After reconstitution, the protein can be preserved at 4°C for a few weeks.

**Avoid multiple freeze-thaw cycles**

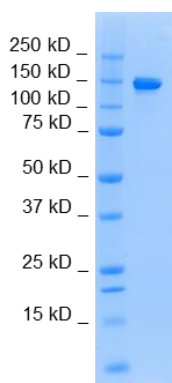
## How to use our product



SIL mAbs are used as an internal standards by addition at the start of a sample preparation workflow. Both Labeled and target therapeutic mAbs will be processed throughout the entire analytical procedure controlling for variability caused by pre-analytical treatments or incomplete enzymatic digestion (1).



## Supporting information



SDS-PAGE gel analysis of ADALIMUMAB protein in non-reducing/ non heated conditions (NR/NH) and Reducing Stained with Coomassie blue

## References

1. **D. Lebert, G.Picard, et al.** Absolute and multiplex quantification of antibodies in serum using PSAQ™ standards and LC-MS/MS, *Bioanalysis*. 2015, 7, 1237-51.
2. **J. Jourdil, F. Stanke-Labesque, et al.** Simultaneous quantification of adalimumab and infliximab in human plasma by liquid chromatography-tandem mass spectrometry. *Therapeutic Drug Monitoring*. 2018, 40, 417-424.
3. **M. El Amrani, E. Maarseveen, et al.** Simultaneous quantification of free adalimumab and infliximab in human plasma using a target-based sample purification and liquid chromatography-tandem mass spectrometry. *Therapeutic Drug Monitoring*. 2019, 41, 640-647.



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

## Legal

This product is licensed under U.S. Patent No. 7,396,688 and foreign counterparts from E. I. du Pont de Nemours and Company. The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product for research and development only. Information about licenses for other uses is available from: E. I. du Pont de Nemours and Company; Attn: Associate Director, Commercial Development; DuPont Experimental Station E268; 200 Powdermill Rd.; Wilmington, DE 19803; 1-877-881-9787 (voice), 1-302-695-1437 (fax), licensing@dupont.com.