Monoclonal Anti-TNF-alpha Antibody, Human IgG1 (13B8) (MALS verified)

Catalog # TNA-AM493

Source

Monoclonal Anti-TNF-alpha Antibody, Human IgG1 (13B8) is a chimeric monoclonal antibody recombinantly expressed from HEK293, which combines the variable region of a mouse monoclonal antibody with Human constant domain.

Clone

13B8

Isotype

Human IgG1 | Kappa

Conjugate

Unconjugated

Antibody Type

Recombinant Monoclonal

Reactivity

Human

Immunogen

Recombinant Human TNF-alpha derived from human HEK293 cells

Specificity

This product is a specific antibody that has a specific response to tnf-α in humans, Canine and Rhesus macaque.

Application

Application	Recommended Usage
ELISA	0.1-12.5 ng/mL

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Purification

Protein A purified/ Protein G purified

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

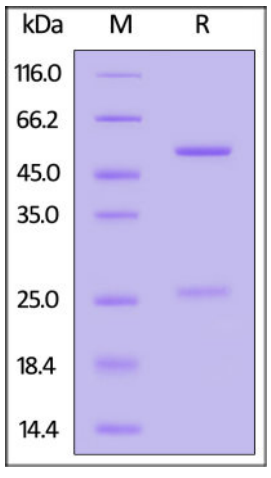
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

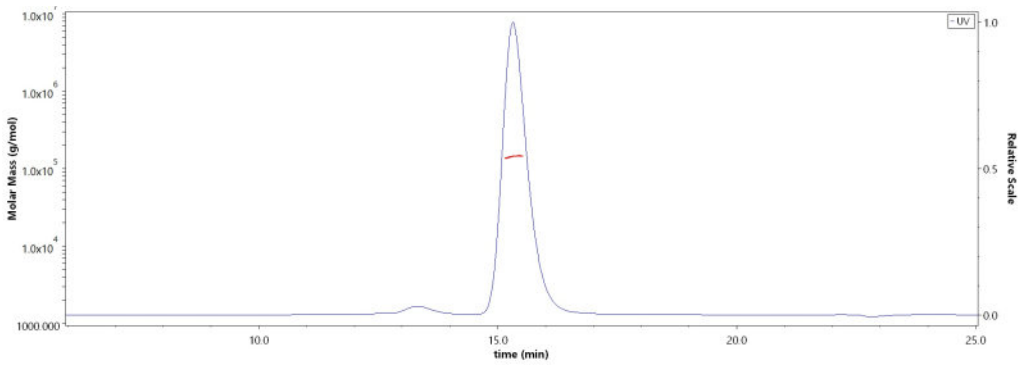
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



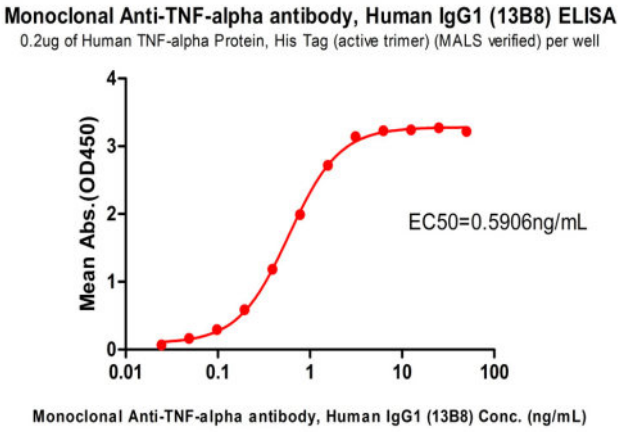
SEC-MALS



Monoclonal Anti-TNF-alpha Antibody, Human IgG1 (13B8) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

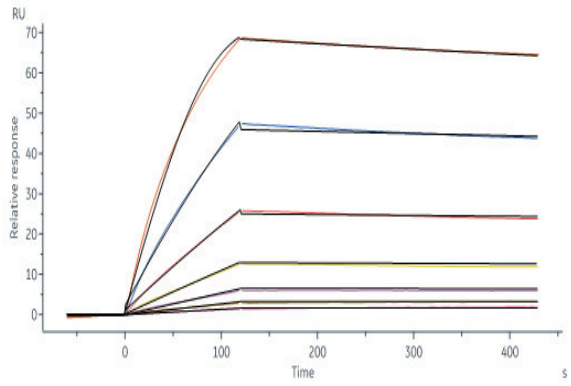
The purity of Monoclonal Anti-TNF-alpha Antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) is more than 95% and the molecular weight of this protein is around 135-160 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



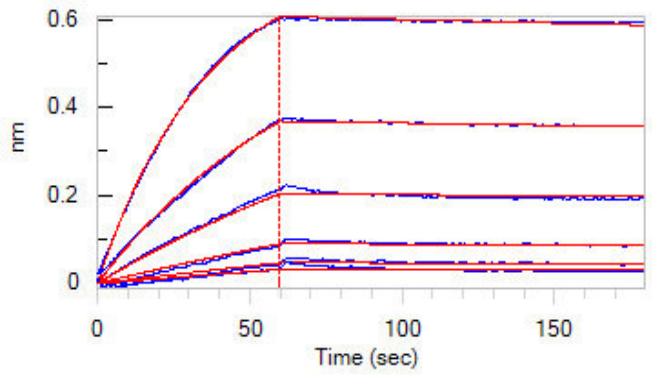
ImmobilizedHuman TNF-alpha Protein, His Tag (active trimer) (MALS verified) (Cat. No. TNA-H5228) at 2μg/mL (100μL/well) can bind Monoclonal Anti-TNF-alpha antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) with a linear range of 0.05-1.56 ng/mL (QC tested).

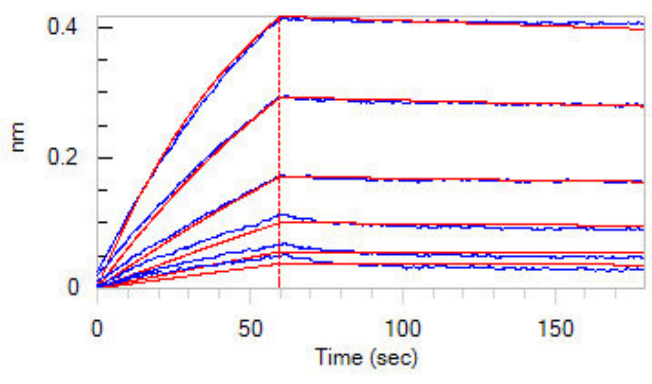
Bioactivity-SPR



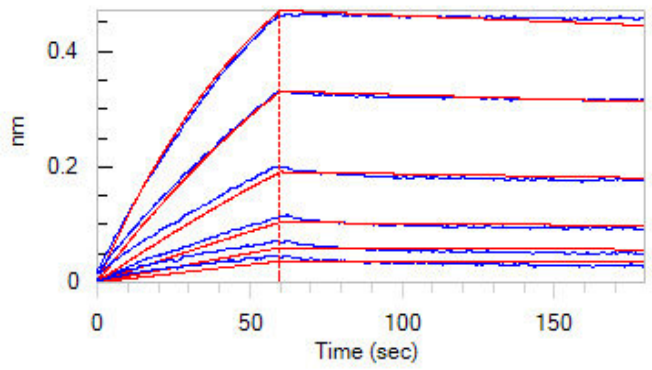
Monoclonal Anti-TNF-alpha antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human TNF-alpha, His Tag (Cat. No. TNA-H5228) with an affinity constant of 0.133 nM as determined in a SPR assay (Biacore 8K) (Routly tested).

Bioactivity-BLI





Loaded Monoclonal Anti-TNF-alpha antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) on Protein A Biosensor, can bind Human TNF-alpha, His Tag (active trimer) (MALS verified) (Cat. No. TNA-H5228) with an affinity constant of 1.03 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Monoclonal Anti-TNF-alpha antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) on Protein A Biosensor, can bind Canine TNF-alpha, His Tag (Cat. No. TNA-C52H3) with an affinity constant of 2.24 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Loaded Monoclonal Anti-TNF-alpha antibody, Human IgG1 (13B8) (Cat. No. TNA-AM493) on Protein A Biosensor, can bind Human TNF-alpha, premium grade (MALS verified) (Cat. No. TNA-H4211) with an affinity constant of 2.97 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Tumor necrosis factor alpha (TNFα) is a cytokine produced primarily by monocytes and macrophages. It is found in synovial cells and macrophages in the tissues.The primary role of TNFα is in the regulation of immune cells. TNFα is able to induce apoptotic cell death, to induce inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNFα production has been implicated in a variety of human diseases, including major depression, Alzheimer's disease and cancer. Recombinant TNFα is used as an immunostimulant under the INN tasonermin. TNFα can be produced ectopically in the setting of malignancy and parallels parathyroid hormone both in causing secondary hypercalcemia and in the cancers with which excessive production is associated.

Clinical and Translational Updates