Source

Monoclonal Anti-TNF-alpha Antibody, Mouse IgG1 (13B8) is a Mouse monoclonal antibody produced from a hybridoma created by fusing SP2/0 myeloma and Mouse B-lymphocytes.

Clone

13B8

Species

Mouse

Isotype

Mouse IgG1/kappa

Conjugate

Unconjugated

Antibody Type

Hybridoma Monoclonal

Reactivity

Human

Immunogen

Recombinant Human TNF-alpha is expressed from human HEK293 cells.

Specificity

This product is a specific antibody specifically reacts with TNF-alpha, Human. No cross-reactivity is detected with other human cytokines, including IL-2, IL-4, IL-6, IL-10, IL-15,IL-21,GM-CSF and IFNγ.

Application

Application	Recommended Usage
ELISA	0.3-300 ng/mL

Purity

>95% as determined by SDS-PAGE.

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

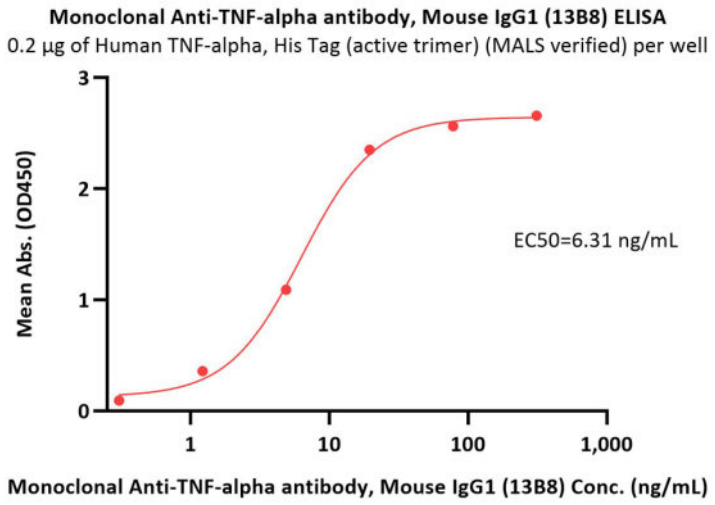
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

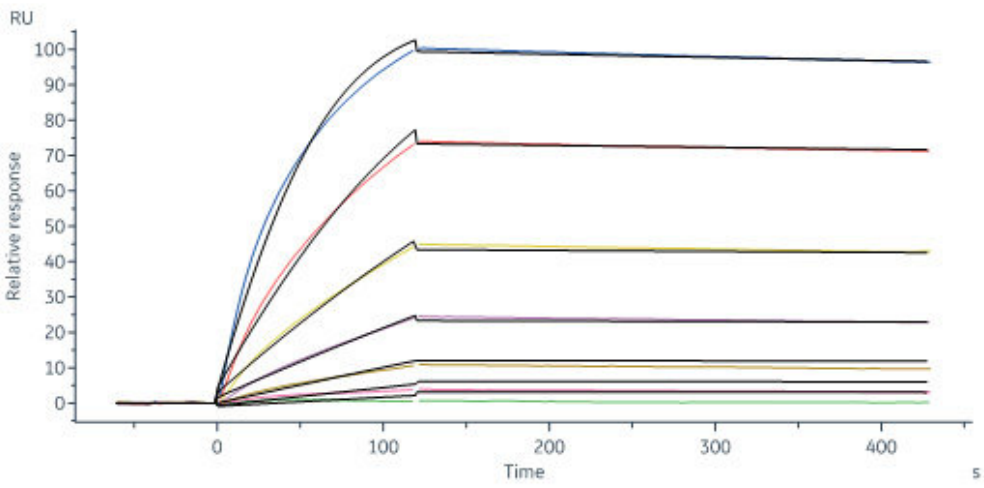
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-ELISA



Immobilized Human TNF-alpha, His Tag (active trimer) (Cat. No. TNA-H5228) at 2 μg/mL (100 μL/well) can bind Monoclonal Anti-TNF-alpha antibody, Mouse IgG1 (13B8) (Cat. No. TNA-Y58) with a linear range of 0.3-20 ng/mL (QC tested).

Bioactivity-SPR



Monoclonal Anti-TNF-alpha antibody, Mouse IgG1 (13B8) (Cat. No. TNA-Y58) captured on CM5 chip via anti-mouse antibodies surface can bind Human TNF-alpha, His Tag (active trimer) (Cat. No. TNA-H5228) with an affinity constant of 0.323 nM as determined in a SPR assay (Biacore 8K) (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