

Product Data Sheet

Recombinant Mouse TNF- α (ELISA Std.)

Catalog # / Size: 575209 / 4 pack

Source: Mouse TNF- α , amino acids Leu 80-Leu 235 (Accession # NM_013693) was expressed in *E. coli*.

Molecular Mass: The 156 amino acid protein has a predicted molecular mass of 17,257 Da. The DTT-reduced and non-reduced protein migrates at approximately 16 kDa by SDS-PAGE. The N-terminal amino acid is Leu.

Purity: Purity is >98% as determined by SDS PAGE, Coomassie stained with Invitrogen SimplyBlue SafeStain.

Preparation: ELISA Standard 4-Pack contains four vials of recombinant human TNF- α at >5 ng per vial. Recommended for ELISA application only. Standards are calibrated against a BioLegend Master Calibrator.

Formulation: Lyophilized in 0.22 μ m filtered PBS, pH 7.2, containing 1% BSA.

Storage: Upon receipt, store unopened vials at 4°C immediately and use within 12 months from date of receipt. Prior to use, reconstitute the lyophilized powder with 0.2 ml of PBS containing a carrier protein (e.g., 1% BSA, protease free), pH 7.4. Re-cap vial, vortex. Allow the reconstituted standard to sit at room temperature for 15 minutes, vortex again to mix completely. The reconstituted standard stock solution can be aliquoted into polypropylene vials and stored at -70°C for up to one month. Do not re-use diluted standards. Use a manual defrost freezer and avoid repeated freeze thaw cycles.

Applications:

Applications: ELISA- *Quality tested*

Recommended Usage: Each lot of this protein is quality control tested by ELISA assay. For use as an ELISA standard, a standard curve comprised of doubling dilutions from 500 pg/ml to 4 pg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: This TNF- α protein is useful as a standard for a mouse TNF- α sandwich ELISA, using unlabelled 6B8 antibody (Cat. No. 510801) as capture and biotinylated MP6-XT22 antibody (Cat. No. 506311) as detection or unlabelled TN3-19.12 antibody (Cat. No. 506102) for capture and biotinylated Poly5062 antibody (Cat. No. 506201) for detection.

Description: TNF- α is secreted by macrophages, monocytes, neutrophils, T-cells (principally CD4⁺), and NK-cells. Many transformed cell lines also secrete TNF- α . Monomeric mouse TNF- α is 156 amino acid protein (N-glycosylated) with a reported molecular weight of 17.5 kD protein. TNF- α forms multimeric complexes; stable trimers are most common in solution. A 26 kD membrane form of TNF- α has also been described. TNF- α binding to surface receptors elicits a wide array of biologic activities including: cytolysis and cytostasis of many tumor cell lines *in vitro*, hemorrhagic necrosis of tumors *in vivo*, increased fibroblast proliferation, and enhanced chemotaxis and phagocytosis in neutrophils. TNF- α is secreted by macrophages, monocytes, neutrophils, T-cells (principally CD4⁺), and NK-cells. Many transformed cell lines also secrete TNF- α . Monomeric mouse TNF- α is 156 amino acid protein (N-glycosylated) with a reported molecular weight of 17.5 kD protein. TNF- α forms multimeric complexes; stable trimers are most common in solution. A 26 kD membrane form of TNF- α has also been described. TNF- α binding to surface receptors elicits a wide array of biologic activities including: cytolysis and cytostasis of many tumor cell lines *in vitro*, hemorrhagic necrosis of tumors *in vivo*, increased fibroblast proliferation, and enhanced chemotaxis and phagocytosis in neutrophils.

Antigen References:

1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.
2. Beutler B, *et al.* 1988. *Annu. Rev. Biochem.* 57:505.
3. Beutler B, *et al.* 1989. *Annu. Rev. Immunol.* 7:625.
4. Tracey K, *et al.* 1993. *Crit. Care Med.* 21:S415.



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