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Datasheet for 010-001-321

rMouse TNF alpha Protein

Overview

Description:	TNF-α Mouse Recombinant Protein - 010-001-321
Item No.:	010-001-321
Size:	20 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Mouse
Expressed in:	E. coli

Product Details

Background:	Tumor Necrosis Factor-alpha (TNF-a) is pleiotrophic cytokine secreted by macrophages, monocytes, neutrophils, T-cells, NK-cells following stimulation by bacterial LPS . TNF-a activity is mediated via interactions with TNFR1 &TNFR2 receptors. The synthesis of TNF-alpha is induced by many different stimuli including interferons, IL-2 & GM-CSF. Recombinant mouse TNF-a produced in E.Coli is a non-glycosylated polypeptide chain containing 156 amino acids and having a molecular mass of 17,300 daltons.
Synonyms:	Tumor necrosis factor, TNF-alpha, TNF-a, TNFα, cytokine, Tumor necrosis factor ligand superfamily member 2, Cachectin
Species of Origin:	Mouse
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Tnf
Purity/Specificity:	Purity was determined to be greater than 98% by analysis by RP-HPLC and by reducing and non-reducing SDS- PAGE.
Relevant Links:	• UniProtKB - P06804 • NCBI

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	TNFα protein has been tested by SDDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-TNFα in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Biological Activity: Recombinant Mouse TNFα is fully biologically active when compared to standard. The ED50 as determined by the cytolysis of mouse L929 cells in the presence of Actinomycin D is 13-20 pg/mL. Endotoxin Level: Measured by LAL is 0.04 EUs/µg (with 50% confidence range).

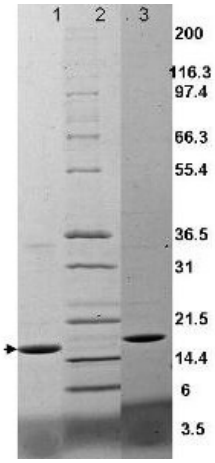
Formulation

Physical State:	Lyophilized
Concentration:	0.1 mg/mL by UV absorbance at 280 nm
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	20µl (20-200µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product is stored in 10mM Sodium Phosphate, 50mM Sodium Chloride, pH 7.5 and DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE
SDS-PAGE shows bands corresponding to TNF-a (1µg) in lane 1 (unreduced, arrowhead) and lane 3 (reduced). Molecular weight estimation was made by comparison to prestained MW markers, lane 2.

References

- Sun, L et al. Role of TRPM2 in H(2)O(2)-induced cell apoptosis in endothelial cells. *PloS One* (2012)

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