Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 400-001-MT3

Recombinant Anti-TNF alpha Fab Antibody

Overview

Description:	Humanized Recombinant Anti-Human TNFα Fab fragment Antibody - 400-001-MT3
Item No.:	400-001-MT3
Size:	50 µg
Applications:	ELISA, WB
Reactivity:	Human
Expressed in:	HEK293

Product Details

Background:	Anti-TNF alpha Antibody recognizes TNF alpha (TNF, cachexin, cachectin, tumor necrosis factor-alpha or TNF-α) a cytokine involved in systemic inflammation. TNF alpha is a member of a group of cytokines that stimulate the acute phase reaction. It is produced chiefly by activated macrophages, although it can be produced by other cell types as well. The primary role of TNF alpha is in the regulation of immune cells. TNF is an endogenous pyrogen that is able to induce fever, apoptotic cell death, sepsis (through IL-1 & IL-6 production), cachexia, inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNF production has been implicated in a variety of human diseases, including Alzheimer's disease, cancer, major depression, and inflammatory bowel disease (IBD). Anti-TNF alpha antibody, Adalimumab, a monoclonal antibody, working by inactivating TNFα is approved to treat rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, Crohn's disease, ulcerative colitis, psoriasis, hidradenitis suppurativa, uveitis, and juvenile idiopathic arthritis and sold under the brand name Humira. This antibody is made from a Adalimumab Fab fragment making it specific, efficient, and effective. Humanized Recombinant Anti-TNFα Fab fragment Antibody is useful for researchers interested in Cancer and Inflammatory disease research.
Synonyms:	APC1 antibody, Cachectin antibody, DIF antibody, Differentiation inducing factor antibody, Macrophage cytotoxic factor antibody, MCF antibody, Necrosin antibody, Tumour Necrosis Factor Alpha antibody, rabbit anti-Tumor Necrosis Factor Alpha Antibody, rabbit anti-TNF Alpha Antibody, Tumor necrosis factor, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a, Tumor necrosis factor membrane form, N-terminal fragment, NTF, Intracellular domain 1, ICD1, Intracellular domain 2, ICD2, C-domain 1, C-domain 2, Tumor necrosis factor, soluble form, TNF, TNFA, TNFSF2
Expressed in:	HEK293
Clonality:	Recombinant Monoclonal

Clone ID:	Abz520
Format:	IgG Fab

Target Details

Gene Name:	TNF alpha
Reactivity:	Human
Immunogen Type:	Recombinant Protein
Purity/Specificity:	Humanized Recombinant TNFα Fab fragment was expressed in HEK293 cells. Purified by one-step purification by HisTrap FF Crude. The purity was estimated to be >95% by SDS-PAGE analysis.
Relevant Links:	• UniProtKB - P01375 • NCBI - NP_000585.2 • GeneID - 7124

Application Details

Tested Applications:	ELISA, WB
Application Note:	Humanized Recombinant Anti-Anti-TNFα Fab fragment Antibody has been tested for use in Western Blot and ELISA. This antibody recognizes structured TNFα and will work in western blot when the protein has not been denatured with DTT or bMe. Although not tested, this antibody could be useful in in IHC and in in-vivo and other cellular assays. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
WB:	User Optimized

Formulation

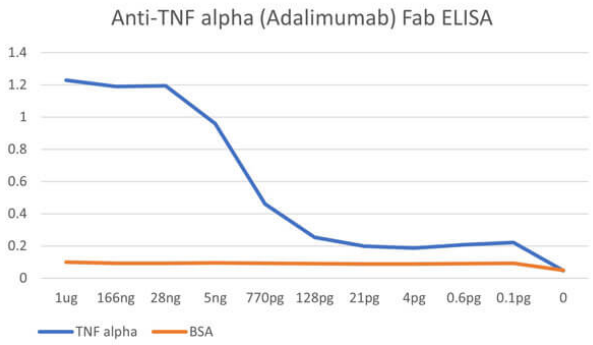
Physical State:	Liquid (sterile filtered)
Concentration:	0.42 mg/ml
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	None

Stabilizer:	30% Glycerol

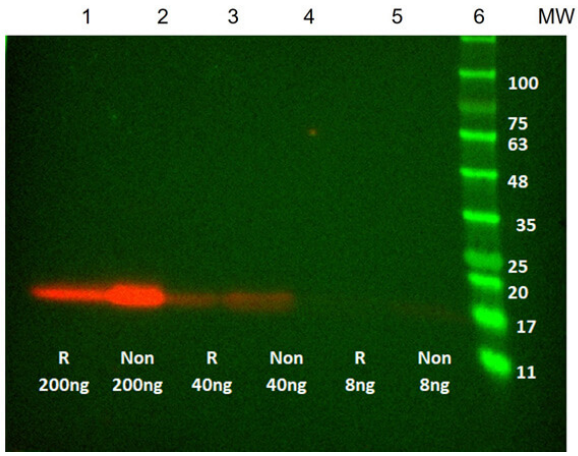
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C. Dilute only prior to immediate use.
Expiration:	Expiration date is six (6) months from date of receipt.

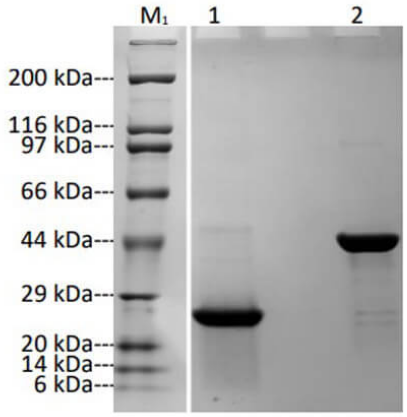
Images



ELISA
ELISA results show the sensitivity of Adalimumab, Anti-human TNF alpha Fab fragment of Adalimumab Antibody tested against purified human TNF alpha protein. Each well was coated in duplicate with 100ng of TNF alpha or BSA. The starting dilution of Fab antibody was 1.0µg/well with 6-fold dilution. The secondary antibody, F(ab')2 Human IgG F(ab')2 Antibody Peroxidase Conjugated Pre-Adsorbed (p/n 709-1318) with 1:5,000 dilution was used.



Western Blot
Western Blot using Adalimumab, Anti-human TNF alpha Fab fragment to detect human TNA alpha. Lanes 1, 3, and 5: TNF alpha reduced. Lanes 2, 4, 6: TNF alpha non-reduced. MW: Molecular Weight Ladder. Protein Load: Lane 1-2: 200ng. Lane 3-4: 40ng. Lane 5-6: 8ng. Primary Antibody: Anti-TNF alpha Fab fragment Antibody at 1.0µg/mL for 2 hours at 4°C. Secondary Antibody: F(ab')2 Human IgG F(ab')2 Antibody Peroxidase Conjugated Pre-Adsorbed (p/n 709-1318) at 1:5,000 dilution was used. The protein has a calculated MW of 18.3kDa. The protein migrates as 18.2kDa under reducing (R) and non-reducing condition (SDS-PAGE).



SDS-PAGE

SDS-PAGE of Humanized Recombinant Anti-human TNF alpha Fab fragment Antibody. Lane M1: Molecular Weight Ladder. Lane 1: recombinant anti-TNF alpha Fab fragment [reduced] . Lane 2: recombinant anti-TNF alpha Fab fragment [non-reduced]. Coomassie Stained.

Disclaimer