

ARG43400
anti-TNF alpha antibody (Biotin)Package: 50 µg
Store at: 4°C

Summary

Product Description	Biotin-conjugated Rabbit Polyclonal antibody recognizes TNF alpha
Tested Reactivity	Rat
Tested Application	ELISA, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	TNF alpha
Species	Rat
Immunogen	E. coli-derived recombinant Rat TNF alpha.
Conjugation	Biotin
Alternate Names	Tumor necrosis factor ligand superfamily member 2; DIF; Cachectin; ICD2; ICD1; N-terminal fragment; TNF-a; TNFA; TNFSF2; TNF-alpha; Tumor necrosis factor; NTF

Application Instructions

Application table	Application	Dilution
	ELISA	0.25 - 1.0 µg/ml
	WB	0.1 - 0.2 µg/ml

Application Note Sandwich ELISA (Capture antibody - Detection antibody): [ARG56624](#) - ARG43400

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

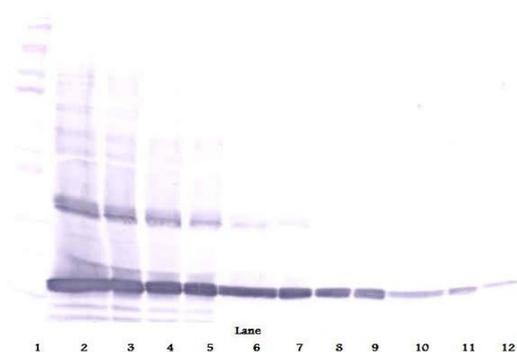
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.2)
Concentration	1 mg/ml
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

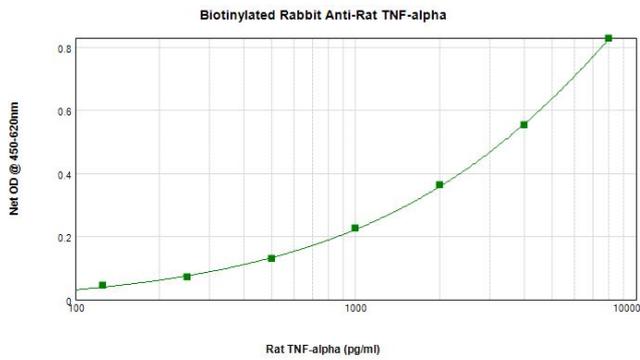
Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
Function	<p>Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Impairs regulatory T-cells (Treg) function in individuals with rheumatoid arthritis via FOXP3 dephosphorylation. Upregulates the expression of protein phosphatase 1 (PP1), which dephosphorylates the key 'Ser-418' residue of FOXP3, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). Key mediator of cell death in the anticancer action of BCG-stimulated neutrophils in combination with DIABLO/SMAC mimetic in the RT4v6 bladder cancer cell line (PubMed:22517918, PubMed:16829952, PubMed:23396208). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity).</p> <p>The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]</p>
Calculated Mw	26 kDa
PTM	<p>The soluble form derives from the membrane form by proteolytic processing. The membrane-bound form is further proteolytically processed by SPPL2A or SPPL2B through regulated intramembrane proteolysis producing TNF intracellular domains (ICD1 and ICD2) released in the cytosol and TNF C-domain 1 and C-domain 2 secreted into the extracellular space.</p> <p>The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1.</p> <p>O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid. [UniProt]</p>
Cellular Localization	<p>Cell membrane; Single-pass type II membrane protein. Tumor necrosis factor, membrane form: Membrane; Single-pass type II membrane protein. Tumor necrosis factor, soluble form: Secreted. C-domain 1: Secreted. C-domain 2: Secreted. [UniProt]</p>

Images



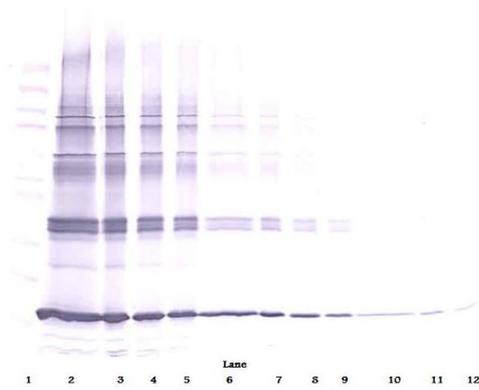
ARG43400 anti-TNF alpha antibody (Biotin) WB image

Western blot: 3.0 - 1.5 ng (left to right) of Recombinant Rat TNF alpha protein stained with ARG43400 anti-TNF alpha antibody (Biotin), under reducing conditions.



ARG43400 anti-TNF alpha antibody (Biotin) standard curve image

Sandwich ELISA: ARG43400 anti-TNF alpha antibody (Biotin) as a detection antibody at 0.25 - 1.0 $\mu\text{g/ml}$ combined with [ARG56624](#) anti-TNF alpha antibody. Results of a typical standard run with optical density reading at 450 - 620 nm.



ARG43400 anti-TNF alpha antibody (Biotin) WB image

Western blot: 3.0 - 1.5 ng (left to right) of Recombinant Rat TNF alpha protein stained with ARG43400 anti-TNF alpha antibody (Biotin), under non-reducing conditions.