

Recombinant Anti-TNF Antibody (V3S-0522-YC1400)

Cat. No.: V3S-0522-YC1400

Summary

Description	This product is a monoclonal antibody derived from Human (<i>Homo sapiens</i>), which can specifically recognize Tumor necrosis factor. The antibody is expressed with mammalian cell transient expression system, serum-free and purified by affinity chromatography. The purity and integrity are tested via SDS-PAGE and SEC-HPLC analysis. Given an antigen, additional QC measures are also desired such as affinity testing and binding validation. Specifically, the antibody is provided in multiple formats for in vivo and in vitro assays. The <i>In vivo</i> version features greater than 95% purity, ultra-low endotoxin levels (<1 EU/mg or 0.1 EU/mg), and is preservative, stabilizer, and carrier protein-free.
Clonality	Monoclonal
Host Species	Human
Target Species	Human
Isotype	IgG
Isotype Control	C34555
Secondary Antibody	C32400; C75370; C10513; C51635; C45530

Property

Expression Species	HEK293F or CHO
Conjugation	None
Purity	>95%, determined by SDS-PAGE and/or SEC-HPLC
Endotoxin	<1 EU/mg, determined by LAL method
Purification	Protein A affinity purified
Sterility	0.2 µM filtered
Formulation	PBS, pH 7.4
Preservation	No preservatives
Stabilizer	No stabilizers
Storage	Store at 4°C within a week. For longer storage, aliquot and store at -20°C.

Applications

For lab research use only, not for diagnostic, therapeutic or any *in vivo* human use.

Application	ELISA
Application Notes	The antibody is recommended for detection of TNF by ELISA assay.

Target

Target	TNF
Alternative Name	TNF; DIF; TNFA; TNFSF2; TNF-alpha; tumor necrosis factor
Gene ID	7124
UniProt	P01375
Introduction	This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. TNF can bind two receptors, TNFR1 (TNF receptor type 1; CD120a; p55/60) and TNFR2 (TNF receptor type 2; CD120b; p75/80). TNFR1 is 55-kDa and TNFR2 is 75-kDa.[30] TNFR1 is expressed in most tissues, and can be fully activated by both the membrane-bound and soluble trimeric forms of TNF, whereas TNFR2 is found typically in cells of the immune system, and respond to the membrane-bound form of the TNF homotrimer. As most information regarding TNF signaling is derived from TNFR1, the role of TNFR2 is likely underestimated.
Research Area	Immunology
Related Disease	Rheumatoid arthritis
Proceedings of R&D	Diseases associated with TNF include Asthma and Malaria. Among its related pathways are Apoptosis Modulation and Signaling and Proteoglycans in cancer. Gene Ontology (GO) annotations related to this gene include identical protein binding and cytokine activity. An important paralog of this gene is LTA.

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