Human TNF-β/TNFSF1 Antibody

Polyclonal Goat IgG
Catalog Number: AB-211-NA

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TNF-β/TNFSF1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human TNF-α and recombinant mouse TNF-α is observed. Neutralizes the biological activity of recombinant human (rh) TNF-β and natural human TNF-β, but will not neutralize the biological activity of rhTNF-α or recombinant mouse TNF-α.
Source	Polyclonal Goat IgG
Purification	Protein A or G purified
Immunogen	*E. coli*-derived recombinant human TNF-β/TNFSF1 Leu35-Leu205 Accession # P01374
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

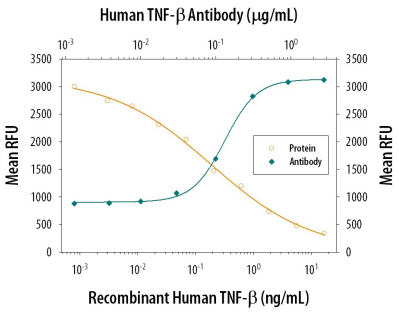
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human TNF-β/TNFSF1 (Catalog # 211-TB)
Neutralization	Measured by its ability to neutralize TNF-β/TNFSF1-induced cytotoxicity in the L-929 mouse fibroblast cell line. Matthews, N. and M. L. Neale (1987) in Lymphokines and Interferons, A Practical Approach. Clemens, M. J. *et al.* (eds): IRL Press. 221. The Neutralization Dose (ND_{50}) is typically 0.2-0.4 µg/mL in the presence of 1 ng/mL Recombinant Human TNF-β/TNFSF1 and 1 µg/mL actinomycin D.	

DATA

Neutralization



Cytotoxicity Induced by TNF-β/TNFSF1 and Neutralization by Human TNF-β/TNFSF1 Antibody. Recombinant Human TNF-β/TNFSF1 (Catalog # 211-TB) induces cytotoxicity in the the L-929 mouse fibroblast cell line in a dose-dependent manner (orange line), as measured by crystal violet staining. Cytotoxicity elicited by Recombinant Human TNF-β/TNFSF1 (1 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human TNF-β/TNFSF1 Polyclonal Antibody (Catalog # AB-211-NA). The ND_{50} is typically 0.2-0.4 µg/mL in the presence of the metabolic inhibitor actinomycin D (1 µg/mL).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Tumor necrosis factor beta (TNF-β), also known as lymphotoxin-alpha (LT-α), and TNF-α, are two structurally and functionally related proteins that bind to the same cell surface receptors (TNF RI and TNF RII) and produce a vast range of similar, but not identical, effects. Among these effects is the ability to kill certain tumor cells directly, from which the names tumor necrosis factor and lymphotoxin both derive. Mature TNF-β/LT-α and TNF-α share approximately 35% protein sequence homology and the biologically active secreted forms of both proteins are homotrimers. Whereas TNF-α can exist as a type II membrane protein, TNF-β/LT-α possesses a typical signal peptide sequence and is a secreted protein. It has been shown that TNF-β/LT-α is also present on the cell surface of activated T, B, and LAK cells as a heteromeric complex with LT-β, a type II membrane protein that is another member of the TNF ligand family. The genes for TNF-α, TNF-β/LT-α, and LT-β are closely linked within the major histocompatibility complex.

TNF-β/LT-α is expressed in activated T- and B-lymphocytes. In addition to its cytotoxic action on tumor cells, TNF-β/LT-α has been shown to be a mediator of inflammation and immune function. Evidence is also accumulating that TNF-β/LT-α and TNF-α are mediators in the pathogenesis of certain autoimmune diseases. TNF-β/LT-α has also been shown to have a role in lymphoid organ development. Human and mouse TNF-β/LT-α share approximately 74% homology in their amino acid sequence and exhibit cross-species activity.