Mouse Lymphotoxin-α/TNF-β Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF749X
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Lymphotoxin-α/TNF-β in direct ELISAs and Western blots. In direct ELISAs, 100% cross-reactivity with recombinant human Lymphotoxin-α/TNF-β is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse Lymphotoxin-α/TNF-β
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Tumor necrosis factor-beta (TNF-β), also known as lymphotoxin-alpha (LT-α), is a secreted homotrimeric glycoprotein belonging to the TNF superfamily and is designated TNFSF1B. It is produced by NK, T, and B cells. TNF-β was originally identified as protein that kills tumor cells in cell culture supernatants of a lymphoblastoid cell line. The TNF-β subunit also associates with the type II transmembrane TNF superfamily protein lymphotoxin beta (LTβ) to generate two types of heterotrimers designated as LTα1β2 (a single TNF-β chain non-covalently associated with two chains of LTβ), and LTα2β1 (1, 2). TNF-α, TNF-β, and LTβ form a subfamily of the TNF related ligands. Their genes are genetically linked within a compact cluster inside the major histocompatibility complex locus (2, 3). The soluble TNF-β binds and signals through TNF R1 and TNF R2. In contrast, the membrane-bound LTα1β2 interacts specifically with the LTβ receptor (LTβR), which does not bind TNF-β or TNF-α. Both TNFR1 and TNFR2 bind LTα2β1, which is recognized weakly by LTβ R (4, 5). TNF R1 and 2 express very broadly, while expression of LTβ R is restricted to stromal cells of lymphoid tissues. Herpesvirus entry mediator binds TNF-β in vitro (6). The physiological importance of such interaction, if it occurs *in vivo*, is unclear. Distinct functions attributed to TNF-β from transgenic knock-out mice include, loss of lymph node development, change in splenic architecture, impaired germinal center formation, and susceptibility to pulmonary tuberculosis (7, 8). TNF-β also has overlapping physiological functions with LTβ and TNF-α in lymphoid organogenesis (7). Mouse and human TNF-β share approximately 74% homology in their amino acid sequence.

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