

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	<i>E. coli</i> -derived recombinant mouse Lymphotoxin- α /TNF- β
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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 (LT β) to generate two types of heterotrimers designated as LT α 1 β 2 (a single TNF- β chain non-covalently associated with two chains of LT β), and LT α 2 β 1 (1, 2). TNF- α , TNF- β , and LT β 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 LT α 1 β 2 interacts specifically with the LT β receptor (LT β R), which does not bind TNF- β or TNF- α . Both TNFR1 and TNFR2 bind LT α 2 β 1, which is recognized weakly by LT β R (4, 5). TNF R1 and 2 express very broadly, while expression of LT β 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 LT β 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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