Human Lymphotoxin-α/TNF-β Alexa Fluor® 405-conjugated Antibody

Recombinant Monoclonal Mouse IgG_{2A} Clone # 5807R

Catalog Number: FAB621RV

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Lymphotoxin-α/TNF-β in ELISAs.
Source	Recombinant Monoclonal Mouse IgG_{2A} Clone # 5807R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived recombinant human Lymphotoxin-α/TNF-β
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	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), 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.

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