

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	<i>E. coli</i> -derived recombinant human Lymphotoxin- α /TNF- β
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.