

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-15R alpha in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2639B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived human IL-15R alpha Met1-Lys173 Accession # NP_751951
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human PBMC treated with LPS (100 ng/ml) and recombinant human IFN gamma (Catalog # 285-IF, 25 ng/ml) for 24 hours

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin 15 receptor alpha (IL-15 R α) is a high affinity receptor that specifically binds IL-15 with high affinity and associates as a heterotrimer with the IL-2 receptors beta and gamma subunits to initiate signal transduction. IL-15 R α is expressed on a wide variety of T cells and B cells as well as non-lymphoid cells. IL-15 R α is a 58-60 kDa protein that shares structural similarities to the IL-2 R α protein. IL-15 R α and IL-2 R α genes also share similar intron-exon organization and are closely linked on human chromosome 10p14-p15. Human IL-15 R α shares 45% amino acid (aa) homology with the mouse form of the receptor. Eight isoforms of IL-15 R α mRNA have been identified resulting from alternative splicing events involving different exons. The exclusion of exon 2 results in an IL-15 R α isoform that does not bind IL-15. Human IL-15 R α DE3 cDNA encodes a 267 aa protein that contains a 30 aa signal sequence, a 175 aa extracellular region containing one N-linked glycosylation site, a 21 aa transmembrane domain and a 41 aa cytoplasmic tail. Signaling of IL-15 can occur in one of three ways; through the heterotrimeric complex of IL-15 R α , IL-2 R β , and IL-2 R γ_c , through the heterodimeric complex of IL-2 receptors beta and gamma common, through a novel 60-65 kDa IL-15 RX subunit found on mast cells. The binding of IL-15 to IL-15 R α has been reported to antagonize the TNF- α -mediated apoptosis in fibroblasts by competing with TNF RI for TRAF2 binding.

References:

- Anderson, D.M. *et al.* (1995) J. Biol. Chem. **270**:29862.
- Bulfone-Paus, S. *et al.* (1999) FASEB **13**:1575.
- Waldemann, T.A. and Y. Tagaya (1999) Ann. Rev. Immunol. **17**:19.
- Dubois, S. *et al.* (1999) J. Biol. Chem. **274**:26978.

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.