

DESCRIPTION

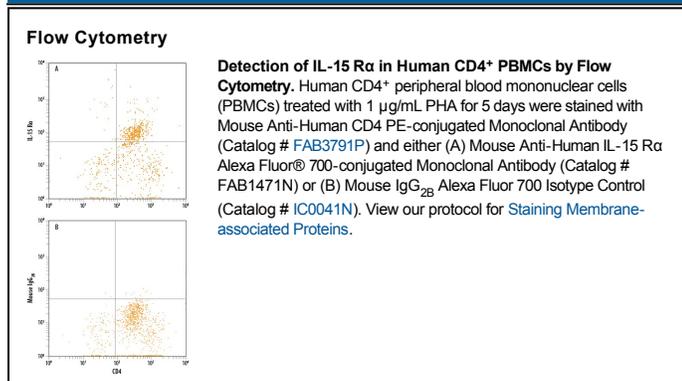
Species Reactivity	Human
Specificity	Detects human IL-15 R α in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-2 R α , rhIL-2 R β , rhIL-2 R γ , or rmlIL-15 R α is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 151303
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-15 R α Ile31-Thr172 Accession # EAW86418
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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	5 μ L/10 ⁶ cells	See Below

DATA



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 , 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:

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

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