

DESCRIPTION

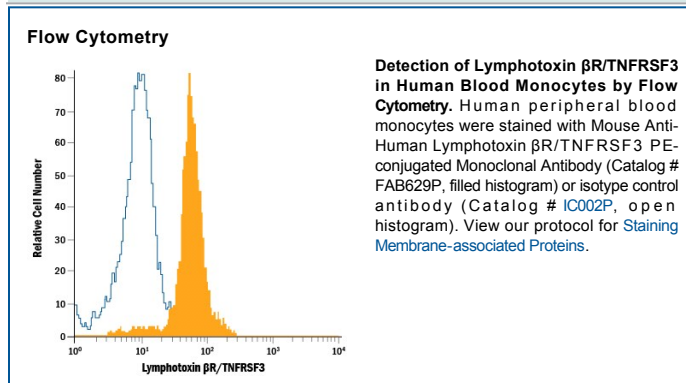
Species Reactivity	Human
Specificity	Detects human Lymphotoxin βR/TNFRSF3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) 4-1BB, rhBAFF R, rhCD27, rhCD30, rhCD40, rhDR3, rhDR6, rhEDAR, rhFas, rhGITR, rhHVEM, recombinant mouse (rm) Lymphotoxin βR, rhNGF R, rhOPG, rhRELT, rhTAJ, rhTNF RI or rhTNF RII is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 71319
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Lymphotoxin βR/TNFRSF3 Gln31-Met227 Accession # P36941
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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	10 μL/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

Lymphotoxin beta Receptor (LTβR), also known as TNF RIII and TNF R-Related Protein (TNF Rrp) is a member of the TNF receptor superfamily, designated TNFRSF3. Human LTβR cDNA encodes a 435 amino acid (aa) residue type I membrane protein with a putative 30 aa residue signal peptide, a 193 aa residue extracellular domain and a 171 aa residue cytoplasmic domain. The extracellular domain of LTβR contains four cysteine-rich motifs characteristic of the TNF receptor superfamily. The cytoplasmic region of LTβR shares little sequence similarity with other TNF receptor family members, suggesting that different signaling mechanisms may be used. LTβR is expressed in a variety of tissues including visceral and lymphoid tissues. LTβR is also expressed by cell lines of monocytic, epithelial, and fibroblastic origins but not by T and B lymphocytes. Human and mouse LTβR share 76% aa sequence homology. The TNF family ligands that have been shown to bind and activate LTβR include LIGHT (also a ligand for HVEM) and the heterotrimeric Lymphotoxin LTα1/β2 or LTα2/β1. Depending on the cell type, activation of LTβR has been shown to induce NFκB activation, chemokine production, growth arrest, and apoptosis. *In vivo*, LTβR has been shown to play a critical role in controlling cellular immune functions and lymphoid organogenesis.

References:

1. Zhai, Y. *et al.* (1998) *J. Clin. Invest.* **102**:1142.
2. Rennert, P.D. *et al.* (1998) *Immunity* **9**:71.
3. Degli-Esposti, M.A. *et al.* (1997) *J. Immunol* **158**:1756.
4. Mackay, F. *et al.* (1996) *J. Biol. Chem.* **271**:8618.
5. Crowe, P.D. *et al.* (1994) *Science* **264**:707.