

#### DESCRIPTION

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                     |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Lymphotoxin $\beta$ R/TNFRSF3 in direct ELISAs and Western blots.                                           |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                       |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                 |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human Lymphotoxin $\beta$ R/TNFRSF3<br>Ser28-Met227<br>Accession # P36941 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                           |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| <b>CyTOF-ready</b>               | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>              | Optimal dilution of this antibody should be experimentally determined. |
| <b>Flow Cytometry</b>            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Inhibition of Cell Growth</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Lymphotoxin beta receptor (LT $\beta$ R), also known as TNF RIII and TNF R-related protein (TNF Rrp), was originally identified as a transcribed sequence on human chromosome 12p with homology to the TNF receptor superfamily. In the new TNF nomenclature, LT $\beta$ R is referred to as TNFRSF3. Human LT $\beta$ R 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 LT $\beta$ R contains four cysteine-rich motif characteristic of the TNF receptor superfamily. The cytoplasmic region of LT $\beta$ R share little sequence similarity with other TNF receptor family members, suggesting that different signaling mechanisms may be utilized. LT $\beta$ R is expressed in a variety of tissues including visceral and lymphoid tissues. LT $\beta$ R is also expressed by cell lines of monocytic, epithelial, and fibroblastic origins but not by T and B lymphocytes. The human and mouse LT $\beta$ R share 76% aa sequence homology. The TNF family ligands that have been shown to bind and activate LT $\beta$ R include LIGHT (also a ligand for HVEM) and the heterotrimeric lymphotoxin LT $\alpha$ 1/ $\beta$ 2 or LT $\alpha$ 2/ $\beta$ 1. Depending on the cell type, activation of LT $\beta$ R has been shown to induce NF $\kappa$ B activation, chemokine production, growth arrest, and apoptosis. *In vivo*, LT $\beta$ R has been shown to play a critical role in controlling cellular immune functions and lymphoid organogenesis.

#### PRODUCT SPECIFIC NOTICES

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