

## DESCRIPTION

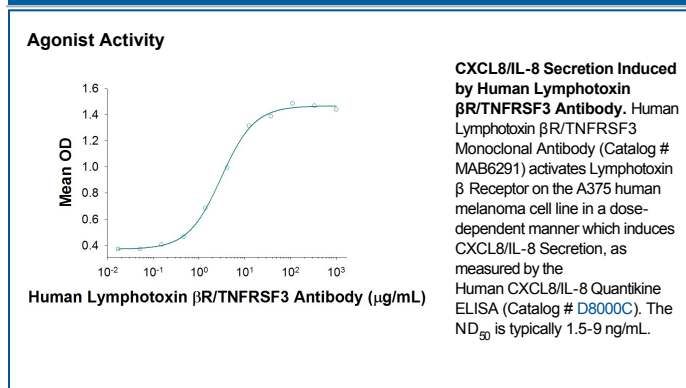
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Lymphotoxin $\beta$ R/TNFRSF3 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 71315
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Lymphotoxin $\beta$ R/TNFRSF3 Gln31-Met227 Accession # P36941
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

## 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.

**Agonist Activity** Measured by its ability to induce CXCL8/IL-8 secretion in the A375 human melanoma cell line. The Neutralization Dose (ND<sub>50</sub>) is typically 1.5-9 ng/mL.

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Lymphotoxin beta receptor (LT $\beta$ R), also known as TNF RIII and TNF R-related protein (TNF Rrp) is a member of the TNF receptor superfamily, designated 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 motifs characteristic of the TNF receptor superfamily. The cytoplasmic region of LT $\beta$ R shares little sequence similarity with other TNF receptor family members, suggesting that different signaling mechanisms may be used. 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. 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.

## 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.