Human Lymphotoxin βR/TNFRSF3 Antibody

Monoclonal Mouse IgG_1 Clone # 71315

Catalog Number: MAB6291

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Lymphotoxin βR/TNFRSF3 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 71315
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
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

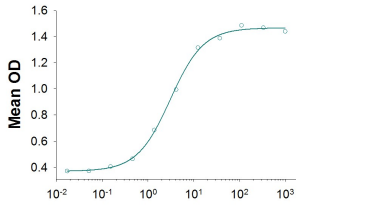
APPLICATIONS

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_{50}) is typically 1.5-9 ng/mL.

DATA

Agonist Activity



CXCL8/IL-8 Secretion Induced by Human Lymphotoxin βR/TNFRSF3 Antibody. Human Lymphotoxin βR/TNFRSF3 Monoclonal Antibody (Catalog # MAB6291) activates Lymphotoxin β Receptor on the A375 human melanoma cell line in a dose-dependent manner which induces CXCL8/IL-8 Secretion, as measured by the Human CXCL8/IL-8 Quantikine ELISA (Catalog # D8000C). The ND_{50} is typically 1.5-9 ng/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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:

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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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449