

Purified anti-human Lymphotoxin beta receptor (LT-βR) Antibody

Catalog# / Size	322002 / 100 µg
Clone	31G4D8
Regulatory Status	RUO
Other Names	Lymphotoxin beta receptor, Tumor necrosis factor receptor superfamily member 3
Isotype	Mouse IgG2b, κ
Description	LT-βR, also known as lymphotoxin beta receptor and tumor necrosis factor receptor superfamily member 3 is a 47 kD transmembrane protein containing 3 TNF receptor domains. The LT-βR is a receptor for the heterotrimeric lymphotoxin complex (composed of LTα and LTβ as well as LIGHT). LT-βR is highly expressed in the lung, liver, and kidney and moderately expressed in the heart and testes. LT-βR is weakly expressed in the brain, thymus, spleen, and lymph nodes. The cytoplasmic tail of LT-βR interacts with TRAF3, TRAF4, and TRAF5 as well as the hepatitis C virus core protein. Ligand binding to LT-βR has been shown to induce apoptosis (via TRAF3 and TRAF5) and play a role in the development of lymphoid organs. The 31G4D8 antibody has been shown to be useful for flow cytometry, Western blot, immunoprecipitation and ELISA (detection antibody). In addition, the 31G4D8 antibody is an agonistic antibody for the LT-βR capable of inducing apoptosis (with IFN-γ treatment).

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human LT-βR Fc protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested WB, IP - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: Western blotting ¹ , immunoprecipitation ¹ , ELISA detection ¹ , induction of apoptosis ² . The biotinylated 31G4D8 antibody is useful as a detection antibody for a sandwich ELISA assay, when used in conjunction with the purified 36G9G3 antibody (Cat. No. 322101/322102) as capture antibody. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 322003/322004).
Application References (PubMed link indicates BioLegend citation)	1. Developer's communication 2. Chen M-C, <i>et al.</i> 2003. <i>J. Biol. Chem.</i> 278:16073.
RRID	AB_2139071 (BioLegend Cat. No. 322002)

Antigen Details

Structure	Member of the TNF receptor superfamily; transmembrane receptor containing 3 TNF receptor domains, predicted molecular weight approximately 47 kD
Distribution	Highly expressed in lung, liver, and kidney. Moderate expression in heart and testes; weak expression in brain, thymus, spleen, and lymph nodes.
Function	Promotes apoptosis via TRAF3 and TRAF5, plays a role in the development of lymphoid organs
Interaction	Receptor for heterotrimeric lymphotoxin complex (composed of LT α and LT β as well as LIGHT. Also interacts with TRAF3, TRAF4, and TRAF5 as well as hepatitis C virus core protein
Cell Type	Embryonic Stem Cells
Biology Area	Immunology, Stem Cells
Molecular Family	Cytokine/Chemokine Receptors
Antigen References	1. Crowe PD, <i>et al.</i> 1994 <i>Science</i> 264:707.
Gene ID	4055

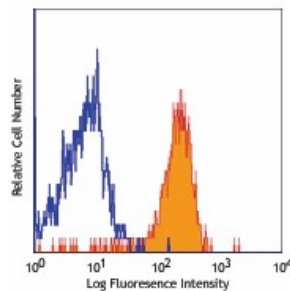
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human Lymphotoxin beta receptor (LT- β R), PE anti-human Lymphotoxin beta receptor (LT- β R), Ultra-LEAF™ Purified anti-human Lymphotoxin β Receptor (LT- β R), TotalSeq™-C0932 anti-human Lymphotoxin β Receptor (LT- β R)

Product Data



Human peripheral blood monocytes stained with purified 31G4D8, followed by biotinylated anti-mouse IgG and Sav-PE

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