

## TotalSeq™-C0932 anti-human Lymphotoxin β Receptor (LT-βR) Antibody

<b>Catalog# / Size</b>	322013 / 10 µg
<b>Clone</b>	31G4D8
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Lymphotoxin beta receptor, Tumor necrosis factor receptor superfamily member 3
<b>Isotype</b>	Mouse IgG2b, κ
<b>Barcode Sequence</b>	CCTCTATTCAGAGCA
<b>Description</b>	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

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human LT-βR Fc protein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-C oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-C antibodies are compatible with 10x Genomics Chromium Single Cell Immune Profiling <a href="#">Solution</a>.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: Western blotting <sup>1</sup> , immunoprecipitation <sup>1</sup> , ELISA detection <sup>1</sup> , induction of apoptosis <sup>2</sup> . 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).

#### Additional Product Notes

TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. [10x Genomics Chromium System and Reagents](#)) and sequencer (e.g. Illumina analyzers) are required. Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](#).

The barcode flanking sequences are CGGAGATGTGTATAAGAGACAGNNNNNNNNNN (PCR handle), and NNNNNNNNNCCCATATAAGA\*A\*A (capture sequence). N represents either randomly selected A, C, G, or T, and \* indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

#### Application References

(PubMed link indicates BioLegend citation)

1. Developer's communication
2. Chen M-C, *et al.* 2003. *J. Biol. Chem.* 278:16073.

#### RRID

AB\_2910390 (BioLegend Cat. No. 322013)

## Antigen Details

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#### 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 LTα and LTβ 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, *et al.* 1994 *Science* 264:707.

#### Gene ID

[4055](#)

## Related Protocols

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[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

## Other Formats

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

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587