## SANTA CRUZ BIOTECHNOLOGY, INC.

# LTβR (Ls-14): sc-80167



## BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated by two distinct cell surface receptors, designated TNF-R1 and TNF-R2, which are expressed on most cell types. TNF function is primarily mediated through TNF-R1 signaling. Both receptors belong to the growing TNF receptor superfamily which includes FAS antigen, CD40 and lymphotoxin  $\beta$  receptor (LT $\beta$ R). LT $\beta$ R is activated upon association with the heterotrimeric lymphotoxin LT- $\alpha 1/\beta 2$ , resulting in NF $\kappa$ B activation and the initiation of apoptosis. LT $\beta$ R is expressed on the surface of most cell types, excluding T and B lymphocytes, and it is involved in lymphoid organ development.

## REFERENCES

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- Ware, C.F., et al. 1995. The ligands and receptor of the lymphotoxin system. Curr. Top. Microbiol. Immunol. 198: 175-218.
- 5. VanArsdale, T.L., et al. 1997. Lymphotoxin  $\beta$  receptor signaling complex: role of tumor necrosis factor receptor-associated factor 3 recruitment in cell death and activation of nuclear factor  $\kappa$ B. Proc. Natl. Acad. Sci. USA 94: 2460-2465.
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- 7. Lee, Y., et al. 2006. Recruitment and activation of naive T cells in the islets by lymphotoxin  $\beta$  receptor-dependent tertiary lymphoid structure. Immunity 25: 499-509.
- 8. Columba-Cabezas, S., et al. 2006. Suppression of established experimental autoimmune encephalomyelitis and formation of meningeal lymphoid follicles by lymphotoxin  $\beta$  receptor-Ig fusion protein. J. Neuroimmunol. 179: 76-86.
- 9. Lukashev, M., et al. 2006. Targeting the lymphotoxin  $\beta$  receptor with agonist antibodies as a potential cancer therapy. Cancer Res. 66: 9617-9624.

## CHROMOSOMAL LOCATION

Genetic locus: Ltbr (mouse) mapping to 6 F3.

## SOURCE

 $LT\beta R$  (Ls-14) is a rat monoclonal antibody raised against the extracellular domain of  $LT\beta R$  of mouse origin.

## PRODUCT

Each vial contains 100  $\mu g \; lgG_{2a}$  in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer.

## APPLICATIONS

LT $\beta$ R (Ls-14) is recommended for detection of LT $\beta$ R of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for LT $\beta$ R siRNA (m): sc-40242, LT $\beta$ R shRNA Plasmid (m): sc-40242-SH and LT $\beta$ R shRNA (m) Lentiviral Particles: sc-40242-V.

Molecular Weight of LTBR: 55-60 kDa.

## SELECT PRODUCT CITATIONS

 Zhu, F., et al. 2017. Autoreactive T cells and chronic fungal infection drive esophageal carcinogenesis. Cell Host Microbe 21: 478-493.e7.

## **STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/ thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.