

# LT $\beta$ R (N-15): sc-8375

## 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 is involved in lymphoid organ development.

## REFERENCES

1. Crowe, P.D., et al. 1994. A lymphotoxin- $\beta$ -specific receptor. *Science* 264: 707-710.
2. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
3. Nagata, S., et al. 1995. The FAS death factor. *Science* 267: 1449-1456.
4. 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.
6. Futterer, A., et al. 1998. The lymphotoxin  $\beta$  receptor controls organogenesis and affinity maturation in peripheral lymphoid tissues. *Immunity* 9: 59-70.

## CHROMOSOMAL LOCATION

Genetic locus: LTBR (human) mapping to 12p13.31.

## SOURCE

LT $\beta$ R (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LT $\beta$ R of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8375 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products

## APPLICATIONS

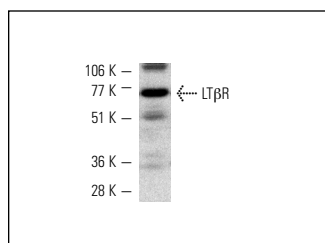
LT $\beta$ R (N-15) is recommended for detection of LT $\beta$ R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LT $\beta$ R siRNA (h): sc-40241, LT $\beta$ R shRNA Plasmid (h): sc-40241-SH and LT $\beta$ R shRNA (h) Lentiviral Particles: sc-40241-V.

Molecular Weight of LT $\beta$ R: 55-60 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208 or Hep G2 cell lysate: sc-2227.

## DATA



LT $\beta$ R (N-15): sc-8375. Western blot analysis of LT $\beta$ R expression in HuT 78 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Bista, P., et al. 2010. TRAF3 controls activation of the canonical and alternative NF $\kappa$ B by the lymphotoxin  $\beta$  receptor. *J. Biol. Chem.* 285: 12971-12978.
2. Or, Y.Y., et al. 2010. Identification of a novel 12p13.3 amplicon in nasopharyngeal carcinoma. *J. Pathol.* 220: 97-107.
3. Ganef, C., et al. 2011. Induction of the alternative NF $\kappa$ B pathway by lymphotoxin  $\alpha\beta$  (LT $\alpha\beta$ ) relies on internalization of LT $\beta$  receptor. *Mol. Cell. Biol.* 31: 4319-4334.
4. Wang, B., et al. 2014. Negative effects of progesterone receptor isoform-A on human placental activity of the noncanonical NF $\kappa$ B signaling. *J. Clin. Endocrinol. Metab.* 99: E320-E328.

## RESEARCH USE

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

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Satisfaction  
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Try **LT $\beta$ R (H-2): sc-398929** or **LT $\beta$ R (31G4D8): sc-53716**, our highly recommended monoclonal alternatives to LT $\beta$ R (N-15).