# SANTA CRUZ BIOTECHNOLOGY, INC.

# LTβR (W-15): sc-8377



#### 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

- Crowe, P.D., VanArsdale, T.L., Walter, B.N., Ware, C.F., Hession, C., Ehrenfels, B., Browning, J.L., Din, W.S., Goodwin, R.G. and Smith, C.A. 1994. A lymphotoxin-β-specific receptor. Science 264: 707-710.
- Smith, C.A., Farrah, T. and Goodwin, R.G. 1994. The TNF Receptor superfamily of cellular and viral proteins: activation, costimulation, and death. Cell 76: 959-962.
- 3. Nagata, S. and Golstein, P. 1995. The FAS death factor. Science 267: 1449-1456.
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- VanArsdale, T.L., VanArsdale, S.L., Force, W.R., Walter, B.N., Mosialos, G., Kieff, E., Reed, J.C. and Ware, C.F. 1997. Lymphotoxin-β receptor signaling complex: role of tumor necrosis factor receptor-associated factor 3 recruitment in cell death and activation of nuclear factor κB. Proc. Natl. Acad. Sci. USA 94: 2460-2465.

#### CHROMOSOMAL LOCATION

Genetic locus: LTBR (human) mapping to 12p13.31; Ltbr (mouse) mapping to 6 F3.

#### SOURCE

 $LT\beta R$  (W-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of  $LT\beta R$  of mouse 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-8377 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

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

# **RESEARCH USE**

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

#### **APPLICATIONS**

LT $\beta$ R (W-15) is recommended for detection of LT $\beta$ R of mouse, rat and human origin Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 siRNA (h): sc-40242, LT $\beta$ R shRNA Plasmid (h): sc-40241-SH, LT $\beta$ R shRNA (h) Lentiviral Particles: sc-40241-V and LT $\beta$ R shRNA (h) Lentiviral Particles: sc-40241-V.

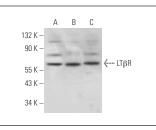
Molecular Weight of LTBR: 55-60 kDa.

Positive Controls: AMJ2-C8 whole cell lysate: sc-364366.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



LT $\beta$ R (W-15): sc-8377. Western blot analysis of LT $\beta$ R expression in HuT 78 (**A**), AMJ2-C8 (**B**) and K-562 (**C**) whole cell lysates.

### SELECT PRODUCT CITATIONS

 Aebischer, J., Cassina, P., Otsmane, B., Moumen, A., Seilhean, D., Meininger, V., Barbeito, L., Pettmann, B. and Raoul, C. 2011. IFNγ triggers a LIGHT-dependent selective death of motoneurons contributing to the noncell-autonomous effects of mutant SOD1. Cell Death Differ. 18: 754-768.

# MONOS Satisfation Guaranteed

Try LTβR (H-2): sc-398929 or LTβR (31G4D8): sc-53716, our highly recommended monoclonal alternatives to LTβR (W-15).