SANTA CRUZ BIOTECHNOLOGY, INC.

LTβR (C-18): sc-8376

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 β receptor (LTβR). LTβR is activated upon association with the heterotrimeric Lymphotoxin LT-α_1/β_2, resulting in NFκB activation and the initiation of apoptosis. LTβR 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-β-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.

CHROMOSOMAL LOCATION

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

SOURCE

LTβR (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LTβR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8376 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LTβR (C-18) is recommended for detection of LTβR of mouse, rat and human origin by 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).

LTβR (C-18) is also recommended for detection of LTβR in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LTβR siRNA (h): sc-40241, LTβR siRNA (m): sc-40242, LTβR shRNA Plasmid (h): sc-40241-SH, LTβR shRNA Plasmid (m): sc-40242-SH, LTβR shRNA (h) Lentiviral Particles: sc-40241-V and LTβR shRNA (m) Lentiviral Particles: sc-40242-V.

Molecular Weight of LTβR: 55-60 kDa.

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

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.

SELECT PRODUCT CITATIONS

1. Aebischer, J., et al. 2011. IFNγ triggers a LIGHT-dependent selective death of motoneurons contributing to the non-cell-autonomous effects of mutant SOD1. Cell Death Differ. 18: 754-768.
2. Aebischer, J., et al. 2012. Elevated levels of IFNγ and LIGHT in the spinal cord of patients with sporadic amyotrophic lateral sclerosis. Eur. J. Neurol. 19: 752-759, e45-e46.
3. He, X., et al. 2013. Serum response factor is overexpressed in esophageal squamous cell carcinoma and promotes Eca-109 cell proliferation and invasion. Oncol. Lett. 5: 819-824.
4. Zhao, M., et al. 2013. Expression of serum response factor in gastric carcinoma and its molecular mechanisms involved in the regulation of the invasion and migration of SGC-7901 cells. Cancer Biother. Radiopharm. 28: 146-152.

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.

PROTOCOLS

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