

LT β R (H-2): sc-398929

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 (LT β R). LT β R is activated upon association with the heterotrimeric lymphotoxin LT- α 1/ β 2, resulting in NF κ B activation and the initiation of apoptosis. LT β R is expressed on the surface of most cell types, excluding T and B lymphocytes, and it 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.
3. Nagata, S. and Golstein, P. 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- β receptor signaling complex: role of tumor necrosis factor receptor-associated factor 3 recruitment in cell death and activation of NF κ B. *Proc. Natl. Acad. Sci. USA* 94: 2460-2465.
6. Futterer, A., et al. 1998. The lymphotoxin- β receptor controls organogenesis and affinity maturation in peripheral lymphoid tissues. *Immunity* 9: 59-70.

CHROMOSOMAL LOCATION

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

SOURCE

LT β R (H-2) is a mouse monoclonal antibody raised against amino acids 41-150 mapping near the N-terminus of LT β R of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LT β R (H-2) is available conjugated to agarose (sc-398929 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398929 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398929 PE), fluorescein (sc-398929 FITC), Alexa Fluor[®] 488 (sc-398929 AF488), Alexa Fluor[®] 546 (sc-398929 AF546), Alexa Fluor[®] 594 (sc-398929 AF594) or Alexa Fluor[®] 647 (sc-398929 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398929 AF680) or Alexa Fluor[®] 790 (sc-398929 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

LT β R (H-2) is recommended for detection of LT β R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 β R siRNA (h): sc-40241, LT β R siRNA (m): sc-40242, LT β R shRNA Plasmid (h): sc-40241-SH, LT β R shRNA Plasmid (m): sc-40242-SH, LT β R shRNA (h) Lentiviral Particles: sc-40241-V and LT β R shRNA (m) Lentiviral Particles: sc-40242-V.

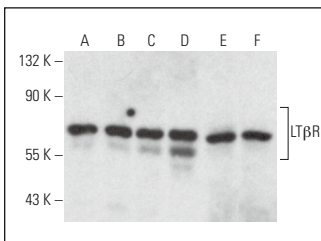
Molecular Weight of LT β R: 55-60 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, K-562 whole cell lysate: sc-2203 or HEL 92.1.7 cell lysate: sc-2270.

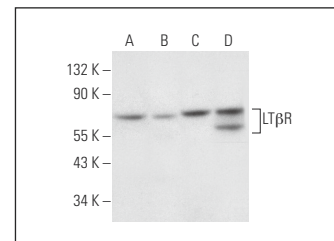
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



LT β R (H-2): sc-398929. Western blot analysis of LT β R expression in K-562 (A), HeLa (B), MCF7 (C), Hep G2 (D), c4 (E) and Sol8 (F) whole cell lysates.



LT β R (H-2): sc-398929. Western blot analysis of LT β R expression in HuT 78 (A), AMJ2-C8 (B), K-562 (C) and HEL 92.1.7 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mukherjee, T., et al. 2017. A TNF-p100 pathway subverts noncanonical NF κ B signaling in inflamed secondary lymphoid organs. *EMBO J.* 36: 3501-3516.

RESEARCH USE

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

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