

IL-20R β (K-13): sc-47058

BACKGROUND

The class II cytokine receptor family includes 12 members, 11 of which combine as various heterodimers to transduce signals across the cellular membrane for 27 cytokines. These cytokines are divided into four structurally related groups: 6 cytokines of the IL-10 family, 17 type I IFNs, one type II IFN and 3 IFN- λ . IL-20 is a member of the IL-10 family of cytokines that has been shown to be upregulated in psoriatic skin. The receptor for IL-20 (IL-20R) exists as a dimer consisting of IL-20R α and IL-20R β . IL-20R also functions as a receptor for IL-19, IL-24 and IL-26. It is highly expressed in skin, brain and testis. IL-20, IL20R α and IL-20R β all have higher expression levels in psoriatic lesional (LS) skin than in nonlesional (NL) skin, suggesting a role for these proteins as potential therapeutic targets. IL-20 can induce signal transducer and activator of transcription (Stat) activation through IL-20R.

REFERENCES

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2. Weber-Nordt, R.M., et al. 1994. Lipopoly-saccharide-dependent induction of IL-10 receptor expression on murine fibroblasts. *J. Immunol.* 153: 3734-3744.
3. Ho, A.S., et al. 1995. Functional regions of the mouse interleukin-10 receptor cytoplasmic domain. *Mol. Cell. Biol.* 15: 5043-5053.
4. Tan, J.C., et al. 1995. Characterization of recombinant extracellular domain of human interleukin-10 receptor. *J. Biol. Chem.* 270: 12906-12911.
5. Carson, W.E., et al. 1995. The functional characterization of interleukin-10 receptor expression on human natural killer cells. *Blood* 85: 3577-3585.
6. Corinti, S., et al. 2001. Regulatory activity of autocrine IL-10 on dendritic cell functions. *J. Immunol.* 166: 4312-4318.
7. Vilcek, J. 2002. Novel interferons. *Nat. Immunol.* 4: 8-9.
8. Stearns, M.E., et al. 2003. IL-10 signaling via IL-10E1 is dependent on tyrosine phosphorylation in the IL-10R alpha chain in human primary prostate cancer cell lines. *Oncogene* 22: 3781-3791.
9. Sheikh, F., et al. 2004. Cutting edge: IL-26 signals through a novel receptor complex composed of IL-20 receptor 1 and IL-10 receptor 2. *J. Immunol.* 172: 2006-2010.

CHROMOSOMAL LOCATION

Genetic locus: IL20RB (human) mapping to 3q22.3.

SOURCE

IL-20R β (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of IL-20R β of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-47058 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-20R β (K-13) is recommended for detection of IL-20R β isoforms 1, 2 and 3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IL-20R β (K-13) is also recommended for detection of IL-20R β isoforms 1, 2 and 3 in additional species, including porcine.

Suitable for use as control antibody for IL-20R β siRNA (h): sc-60833, IL-20R β shRNA Plasmid (h): sc-60833-SH and IL-20R β shRNA (h) Lentiviral Particles: sc-60833-V.

Molecular Weight of IL-20R β : 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) 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. Patani, N., et al. 2010. Tumour suppressor function of MDA-7/IL-24 in human breast cancer. *Cancer Cell Int.* 10: 29.
2. Ablin, R.J., et al. 2011. Prostate transglutaminase (TGase-4) antagonizes the anti-tumour action of MDA-7/IL-24 in prostate cancer. *J. Transl. Med.* 9: 49.
3. Bosanquet D.C., et al. 2012. Expression of IL-24 and IL-24 receptors in human wound tissues and the biological implications of IL-24 on keratinocytes. *Wound Repair Regen.* 20: 896-903.

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.