

OSMR β (N-20): sc-8495

BACKGROUND

Oncostatin M (OSM) is a glycoprotein that inhibits the growth of a broad range of human tumor cell lines, but does not influence the growth of normal human fibroblasts. Expression of OSM is greatest in activated monocytic and lymphocytic cell lines and in normal adherent macrophages. Amino acid sequence analysis of OSM has revealed homology with leukemia inhibitory factor (LIF), granulocyte colony stimulating factor (G-CSF) and interleukin 6 (IL-6), all of which affect the growth and differentiation of a broad range of cell types, including those of hematopoietic origin. OSMR β (oncostatin M receptor β), also known as OSMR, is a 979 amino acid single-pass type I membrane protein that functions as a receptor for OSM. Expressed at high levels in neural cells, as well as fibroblast and epithelial tumor lines, OSMR β exists as a heterodimer that interacts with interleukins and is able to transduce OSM-induced signaling events. Defects in the gene encoding OSMR β are the cause of primary cutaneous amyloidosis (PCA), an autosomal dominant disorder characterized by chronic itching of the skin.

REFERENCES

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- Ruprecht, K., et al. 2001. Effects of oncostatin M on human cerebral endothelial cells and expression in inflammatory brain lesions. *J. Neuropathol. Exp. Neurol.* 60: 1087-1098.
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- Radtke, S., et al. 2002. Novel role of Janus kinase 1 in the regulation of oncostatin M receptor surface expression. *J. Biol. Chem.* 277: 11297-11305.
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- Abir, R., et al. 2005. Immunocytochemical detection and reverse transcription polymerase chain reaction expression of oncostatin M (OSM) and its receptor (OSM-R β) in human fetal and adult ovaries. *Fertil. Steril.* 83: 1188-1196.

CHROMOSOMAL LOCATION

Genetic locus: OSMR (human) mapping to 5p13.1.

SOURCE

OSMR β (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of OSMR β of human origin.

STORAGE

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

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-8495 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OSMR β (N-20) is recommended for detection of OSMR β 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).

OSMR β (N-20) is also recommended for detection of OSMR β in additional species, including canine.

Suitable for use as control antibody for OSMR β siRNA (h): sc-40068, OSMR β shRNA Plasmid (h): sc-40068-SH and OSMR β shRNA (h) Lentiviral Particles: sc-40068-V.

Molecular Weight of OSMR β : 180 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

- García-Tuñón, I., et al. 2008. OSM, LIF, its receptors, and its relationship with the malignance in human breast carcinoma (*in situ* and in infiltrative). *Cancer Invest.* 26: 222-229.
- Zeaiter, Z., et al. 2011. Helicobacter pylori induces expression and secretion of oncostatin M in macrophages *in vitro*. *Dig. Dis. Sci.* 56: 689-697.
- Dubash, A.D., et al. 2011. The small GTPase RhoA localizes to the nucleus and is activated by Net1 and DNA damage signals. *PLoS ONE* 6: e17380.

RESEARCH USE

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



Try **OSMR β (D-10): sc-271695** or **OSMR β (AN-A2): sc-9992**, our highly recommended monoclonal alternatives to OSMR β (N-20).