SANTA CRUZ BIOTECHNOLOGY, INC.

OSMR β (C-12): sc-376511

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Mosley, B., et al. 1996. Dual Oncostatin M (OSM) receptors. Cloning and characterization of an alternative signaling subunit conferring OSM-specific receptor activation. J. Biol. Chem. 271: 32635-32643.
2. Blanchard, F., et al. 2001. Oncostatin M regulates the synthesis and turnover of gp130, leukemia inhibitory factor receptor α, and Oncostatin M receptor β by distinct mechanisms. J. Biol. Chem. 276: 47038-47045.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: Osmr (mouse) mapping to 15 A1.

SOURCE

OSMR β (C-12) is a mouse monoclonal antibody raised against amino acids 782-971 mapping at the C-terminus of OSMR β of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OSMR β (C-12) is available conjugated to agarose (sc-376511 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376511 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376511 PE), fluorescein (sc-376511 FITC), Alexa Fluor® 488 (sc-376511 AF488), Alexa Fluor® 546 (sc-376511 AF546), Alexa Fluor® 594 (sc-376511 AF594) or Alexa Fluor® 647 (sc-376511 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376511 AF680) or Alexa Fluor® 790 (sc-376511 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

OSMR β (C-12) is recommended for detection of OSMR β of mouse origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 OSMR β siRNA (m): sc-40069, OSMR β shRNA Plasmid (m): sc-40069-SH and OSMR β shRNA (m) Lentiviral Particles: sc-40069-V.

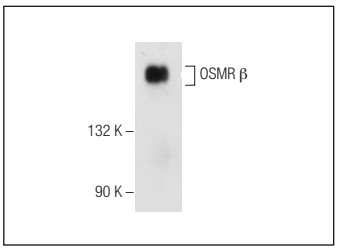
Molecular Weight of OSMR β: 180 kDa.

Positive Controls: EOC 20 whole cell lysate: sc-364187.

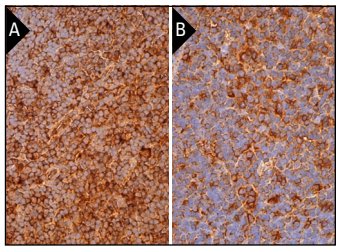
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



OSMR β (C-12): sc-376511. Western blot analysis of OSMR β expression in EOC 20 whole cell lysate.



OSMR β (C-12): sc-376511. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse spleen tissue showing membrane and cytoplasmic staining of cells in white pulp and cells in red pulp (**B**).

SELECT PRODUCT CITATIONS

1. Jakob, L., et al. 2021. Murine Oncostatin M has opposing effects on the proliferation of OP9 bone marrow stromal cells and NIH/3T3 fibroblasts signaling through the OSMR. Int. J. Mol. Sci. 22: 11649.

STORAGE

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