SANTA CRUZ BIOTECHNOLOGY, INC.

OSMR β (AN-A2): sc-9992

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.

CHROMOSOMAL LOCATION

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

SOURCE

OSMR β (AN-A2) is a mouse monoclonal antibody raised against full length soluble oncostatin M receptor β of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OSMR β (AN-A2) is available conjugated to agarose (sc-9992 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-9992 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-9992 PE), fluorescein (sc-9992 FITC), Alexa Fluor® 488 (sc-9992 AF488), Alexa Fluor® 546 (sc-9992 AF546), Alexa Fluor® 594 (sc-9992 AF594) or Alexa Fluor® 647 (sc-9992 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-9992 AF680) or Alexa Fluor® 790 (sc-9992 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

OSMR β (AN-A2) is recommended for detection of OSMR β of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

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.

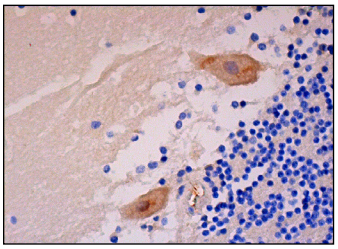
Molecular Weight of OSMR β: 180 kDa.

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

STORAGE

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

DATA



OSMR β (AN-A2): sc-9992. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and membrane staining of Purkinje cells.

SELECT PRODUCT CITATIONS

1. 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.
2. Radtke, S. 2005. The Jak1 SH2 domain does not fulfill a classical SH2 function in Jak/Stat signaling but plays a structural role for receptor interaction and up-regulation of receptor surface expression. J. Biol. Chem. 280: 25760-25768.
3. Radtke, S., et al. 2006. Three dileucine-like motifs within the interbox1/2 region of the human oncostatin M receptor prevent efficient surface expression in the absence of an associated Janus kinase. J. Biol. Chem. 281: 4024-4034.
4. Radtke, S., et al. 2010. Cross-regulation of cytokine signalling: pro-inflammatory cytokines restrict IL-6 signalling through receptor internalisation and degradation. J. Cell Sci. 123: 947-959.
5. Kausar, T., et al. 2011. Overexpression of a splice variant of oncostatin M receptor β in human esophageal squamous carcinoma. Cell. Oncol. 34: 177-187.
6. McGuckin, C.P., et al. 2013. Ischemic brain injury: a consortium analysis of key factors involved in mesenchymal stem cell-mediated inflammatory reduction. Arch. Biochem. Biophys. 534: 88-97.
7. Kirchmeyer, M., et al. 2018. Cytokine-mediated modulation of the hepatic miRNome: miR-146b-5p is an IL-6-inducible miRNA with multiple targets. J. Leukoc. Biol. 104: 987-1002.
8. Nikanfar, S., et al. 2022. Oncostatin M and its receptor in women with polycystic ovary syndrome and association with assisted reproductive technology outcomes. Reprod. Biol. 22: 100633.

RESEARCH USE

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