SANTA CRUZ BIOTECHNOLOGY, INC.

OSM (B-6): sc-133229

BACKGROUND

Oncostatin M (OSM) is a glycoprotein that was originally isolated from the conditioned medium of U-937 human histiocytic leukemia cells that had been induced to differentiate into macrophage-like cells by treatment with phorbol 12-myristate 13 acetate. OSM inhibits the growth of a broad range of human tumor cell lines, but does not influence the growth of normal human fibroblasts. High-affinity binding sites for OSM have been detected on normal and tumor cells, and a receptor has been identified by chemical cross-linking studies. 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.

REFERENCES

1. Zarling, J.M., et al. 1986. Oncostatin M: a growth regulator produced by differentiated histiocytic lymphoma cells. Proc. Natl. Acad. Sci. USA 83: 9739-9743.
2. Brown, T.J., et al. 1987. Purification and characterization of cytostatic lymphokines produced by activated human T lymphocytes. J. Immunol. 139: 2977-2983.
3. Linsley, P.S., et al. 1989. Identification and characterization of cellular receptors for the growth regulator, oncostatin M. J. Biol. Chem. 264: 4282-4289.
4. Malik, N., et al. 1989. Molecular cloning, sequence analysis, and functional expression of a novel growth regulator, oncostatin M. Mol. Cell. Biol. 9: 2847-2853.
5. Horn, D., et al. 1990. Regulation of cell growth by recombinant oncostatin M. Growth Factor 2: 157-165.
6. Rose, T.M., et al. 1991. Oncostatin M is a member of a cytokine family that includes leukemia-inhibitory factor, granulocyte colony-stimulating factor, and interleukin 6. Proc. Natl. Acad. Sci. USA 88: 8641-8645.
7. Miles, S.A., et al. 1992. Oncostatin M as a potent mitogen for AIDS-Kaposi's sarcoma-derived cells. Science 255: 1432-1434.

CHROMOSOMAL LOCATION

Genetic locus: Osm (mouse) mapping to 11 A1.

SOURCE

OSM (B-6) is a mouse monoclonal antibody raised against amino acids 21-220 representing mature OSM of rat 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.

RESEARCH USE

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

APPLICATIONS

OSM (B-6) is recommended for detection of OSM of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for OSM siRNA (m): sc-39690, OSM shRNA Plasmid (m): sc-39690-SH and OSM shRNA (m) Lentiviral Particles: sc-39690-V.

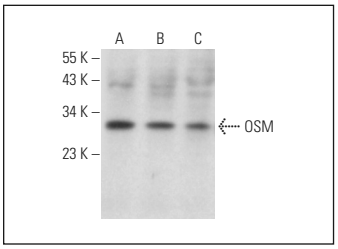
Molecular Weight of OSM: 28 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, PC-12 cell lysate: sc-2250 or rat testis extract: sc-2400.

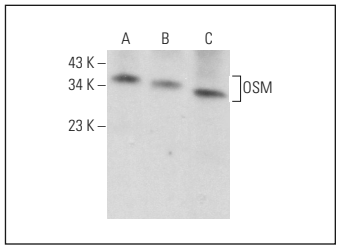
RECOMMENDED SUPPORT REAGENTS

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.

DATA



OSM (B-6): sc-133229. Western blot analysis of OSM expression in AMJ2-C8 (**A**), BYDP (**B**) and IB4 (**C**) whole cell lysates.



OSM (B-6): sc-133229. Western blot analysis of OSM expression in KNRK (**A**) and PC-12 (**B**) whole cell lysates and rat testis tissue extract (**C**).

SELECT PRODUCT CITATIONS

1. Henkel, J., et al. 2011. Oncostatin M produced in Kupffer cells in response to PGE_2: possible contributor to hepatic Insulin resistance and steatosis. Lab. Invest. 91: 1107-1117.
2. Garcia, J.P., et al. 2021. Association between oncostatin M expression and inflammatory phenotype in experimental arthritis models and osteoarthritis patients. Cells 10: 508.

STORAGE

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