OSM (H-2): sc-374040



The Power to Question

BACKGROUND

Oncostatin M (OSM) is a glycoprotein that was originally isolated from the conditioned medium of U937 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

- 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. Synergistic antiproliferative activity of transforming growth factor β 1, interferon- γ , and Oncostatin M for human melanoma cells. 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.
- 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 Factors 2: 157-165.
- 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.
- Miles, S.A., et al. 1992. Oncostatin M as a potent mitogen for AIDS-Kaposi's sarcoma-derived cells. Science 255: 1432-1434.
- Gearing, D.P., et al. 1992. The IL-6 signal transducer, gp130: an Oncostatin M receptor and affinity converter for the LIF receptor. Science 255: 1434-1437.
- 9. Modur, V., et al. 1997. Oncostatin M is a proinflammatory mediator. *In vivo* effects correlate with endothelial cell expression of inflammatory cytokines and adhesion molecules. J. Clin. Invest. 100: 158-168.

CHROMOSOMAL LOCATION

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

SOURCE

OSM (H-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 65-96 near the N-terminus of OSM of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-374040 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

OSM (H-2) is recommended for detection of precursor and mature OSM of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

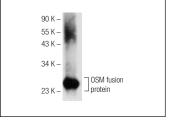
Suitable for use as control antibody for OSM siRNA (m): sc-39690, OSM shRNA Plasmid (m): sc-39690-SH and OSM shRNA (m) Lentiviral Particles: sc-39690-V.

Molecular Weight of OSM: 28 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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-lgG κ BP-FITC: sc-516140 or m-lgG κ 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 (H-2): sc-374040. Western blot analysis of mouse recombinant OSM fusion protein.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com