SANTA CRUZ BIOTECHNOLOGY, INC.

OSM (G-1): sc-390253

SANTA CRUZ BIOTECHNOLOGY

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

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 Factors 2: 157-165.

CHROMOSOMAL LOCATION

Genetic locus: OSM (human) mapping to 22q12.2.

SOURCE

OSM (G-1) is a mouse monoclonal antibody raised against amino acids 26-235 representing mature OSM of human 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.

OSM (G-1) is available conjugated to agarose (sc-390253 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390253 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390253 PE), fluorescein (sc-390253 FITC), Alexa Fluor® 488 (sc-390253 AF488), Alexa Fluor® 546 (sc-390253 AF546), Alexa Fluor® 594 (sc-390253 AF594) or Alexa Fluor® 647 (sc-390253 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390253 AF680) or Alexa Fluor® 790 (sc-390253 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

OSM (G-1) is recommended for detection of precursor and mature OSM of human 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).

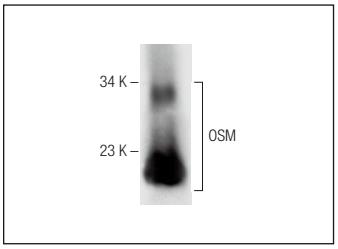
Suitable for use as control antibody for OSM siRNA (h): sc-39689, OSM shRNA Plasmid (h): sc-39689-SH and OSM shRNA (h) Lentiviral Particles: sc-39689-V.

Molecular Weight of OSM: 28 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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 (G-1): sc-390253. Western blot analysis of human recombinant OSM.

SELECT PRODUCT CITATIONS

1. Tian, T., et al. 2018. H3N2 influenza virus infection enhances Oncostatin M expression in human nasal epithelium. Exp. Cell Res. 371: 322-329.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.