

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Oncostatin M in ELISAs and Western blots. In ELISAs, this antibody does not cross-react with recombinant human (rh) IL-6, rhIL-11, rhCNTF, or rhLIF.
Source	Monoclonal Mouse IgG _{2A} Clone # 17001
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human Oncostatin M/OSM Ala26-Arg234 Accession # P13725
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

OSM is a cytokine originally isolated from medium conditioned by PMA-treated U-937 human histiocytic leukemia cells based on its ability to inhibit growth of A375 melanoma cells. The human OSM cDNA encodes a 252 amino acid pre-pro-OSM polypeptide with a 25 residue hydrophobic signal peptide and a hydrophilic C-terminal domain that are proteolytically processed to generate the 196 residue mature form of OSM. Although both mature and pro-OSM are equally active in radio-receptor assays, the mature OSM is 5- to 60-fold more active in growth inhibition assays. Thus, proteolytic processing of the pro-OSM peptide may be important in regulating the *in vivo* activities of OSM.

OSM is a pleiotropic cytokine that initiates its biological activities by binding to specific cell surface receptors. The gp130, a signal transducing component (β subunit) of the IL-6, LIF and CNTF receptor complexes, was identified as a low-affinity OSM receptor that does not transduce OSM signals. The low affinity LIF receptor (LIF R, a gp130-related protein) has now been identified to be a component of a high-affinity OSM receptor that will transduce OSM signals. Since OSM is also active on cells that do not express LIF R, a specific OSM receptor that does not involve LIF R must also exist. Besides its growth inhibitory activities on human A375 melanoma and mouse M1 myeloid leukemic cells, as well as on other solid tumor cells, OSM also has growth stimulatory activities on normal fibroblasts, AIDS-Kaposi's sarcoma cells, and a human erythroleukemia cell line, TF-1. Other OSM-mediated activities reported to date include: stimulation of plasminogen activator activity in cultured bovine aortic endothelial cells; regulation of IL-6 expression in human endothelial cells; and stimulation of LDL uptake and up-regulation of cell surface LDL receptors in HepG2 cells.

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