

Oncostatin M Receptor β /Fc Chimera
Mouse, Recombinant, Expressed in NSO cellsProduct Code **O 8762**Storage Temperature $-20\text{ }^{\circ}\text{C}$ Synonym: OSM R β /Fc Chimera**Product Description**

Recombinant mouse OSM R β /Fc chimera consists of amino acid residues 1 - 738 (extracellular domain) fused by a polypeptide linker to the C-terminal 6X histidine-tagged Fc portion of human IgG. The chimeric protein was expressed in mouse myeloma NSO cells. Recombinant OSM R β /Fc is a disulfide-linked homodimer. The calculated molecular mass of the monomer is 109 kDa, but as a result of glycosylation, the recombinant monomer migrates at >150 kDa on reducing SDS-PAGE.^{1,2}

Oncostatin M is a member of the IL-6-type family of cytokines that includes IL-6, IL-11, CNTF (ciliary neurotrophic factor), LIF (leukemia inhibitory factor), and cardiotrophin-1. These cytokines signal through the common receptor subunit gp130.

Human OSM signals through two types of receptor complexes: type I made up of gp130 and LIF R β and type II made up of gp130 and OSM R β . Mouse OSM signals only through the type II complex. Mouse OSM R β retains a low affinity for OSM when not complexed to gp130, but forms a high-affinity binding complex in the presence of gp130. Mouse OSM R β demonstrates a 55% homology to human OSM R β .^{1,2,3}

Supplied as approximately 100 μg of protein lyophilized from a $0.2\text{ }\mu\text{m}$ filtered phosphate-buffered saline (PBS) solution.

Preparation Instructions

Reconstitute the vial contents with sterile PBS containing at least 0.1% HSA or BSA.

Suggested minimum stock solution: 100 $\mu\text{g/ml}$

Product Information

Storage/Stability

Lyophilized samples are stable for more than six months at $-20\text{ }^{\circ}\text{C}$ to $-70\text{ }^{\circ}\text{C}$. Upon reconstitution, store at $2\text{--}8\text{ }^{\circ}\text{C}$ for up to one month. Store in working aliquots at $-20\text{ }^{\circ}\text{C}$ for up to three months. Repeated freeze-thaw cycles should be avoided. Do not store in a frost-free freezer.

Product Profile

Activity: immobilized recombinant mouse OSM R β /Fc chimera at 4 $\mu\text{g/ml}$ (100 $\mu\text{l}/\text{well}$) binds recombinant mouse OSM with a linear range of 2 – 0.06 ng/ml in a functional ELISA assay. Optimal dilutions should be determined by each laboratory for each application.

Endotoxin level: < 0.1 ng/ μg (LAL)

References

1. Lindberg, R.A., et al., Cloning and Characterization of a Specific Receptor for Mouse Oncostatin M, *Mol. Cell Biol.* 18: 3357 – 3367 (1998).
2. Tanaka, M. et al., Reconstitution of the Functional Mouse Oncostatin M (OSM) Receptor: Molecular Cloning of the Mouse OSM Receptor β -subunit, *Blood*, 93: 804 - 815 (1999)
3. Hermanns, H.M., et al., Non-redundant Signal Transduction of Interleukin-6-type Cytokines, *J. Biol. Chem.* 275:40742 – 40748 (2000)

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