

## Recombinant Human Oncostatin M/OSM

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Accession #	P13725		
Alternate Names	MGC20461; oncostatin M; oncostatin-M; OSM		
Source	Human embryonic kidney cell, HEK293-derived human Oncostatin M/OSM protein		
Protein sequence	Ala26-Arg221		
M.Wt	25.8 kDa		
Appearance	Solution protein.		
Stability & Storage	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. 12 months from date of receipt, -20 to -70 °C as supplied.		
Concentration	0. 2 mg/mL		
Formulation	Dissolved in sterile PBS buffer.		
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.		
<b>Biological Activity</b>	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The EC50 for this effect is 5-30 pg/mL.		
Shipping Condition	Shipping with dry ice.		
Handling	Centrifuge the vial prior to opening.		
Usage	For Research Use Only! Not to be used in humans.		
Quality Control	and the owner of the second seco		
Purity	> 95%, determined by SDS-PAGE.		
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.		

## Description

Oncostatin M (OSM) is a glycoprotein belonging to the interleukin-6 family of cytokines that has functions mainly in cell growth. Oncostatin M (OSM) is considered as a pleiotropic cytokine that signals through cell surface receptors typeI and typeII both of which share the similarity of containing protein gp130 and takes part in many bio metabolism processes including liver development, hematopoiesis, inflammation, bone formation, and destruction and possibly CNS development. Oncostatin M (OSM) was previously identified by its ability to inhibit the growth of cells from melanoma and other solid tumors. It also has been reported that OSM, like LIF, IL-6, and G-CSF, can inhibit the proliferation of murine M1 myeloid leukemic cells and can induce their differentiation into macrophage-like cells. The human form of OSM is insensitive between pH2 and 11 and

resistant to heating for one hour at 56 degrees but is not stable at 90 degrees. The human OSM is produced as a precursor containing 252 amino acids, whose first 25 amino acids function as a secretory signal peptide and which on removal yields the soluble 227 amino acid pro-OSM. Removal of the C-terminal most 31 amino acids produce the fully active 196 residue form.

## Reference



- [1]. Tanaka M, et al. (2003) Rev Physiol Biochem Pharmacol. 149: 39-52.
- [2]. Auguste P, et al. (1997) J Biol Chem. 272 (25): 15760-4.
- [3]. Zarling JM, et al. (1986) Proc Natl Acad Sci. 83 (24): 9739-43.



