

Recombinant Human OSM Protein

Cat. No. OSM-31H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human oncostatin M (OSM) protein without tag was expressed in E. coli.
	Animal-free (AOF) and carrier protein-free.
	Mass spectrometry: single species with expected mass.
	Analytical reversed-phase: single sharp peak.
	Recovery from stock vial: >95%
Species	Human
Source	E.coli
Description	This gene encodes a member of the leukemia inhibitory factor/oncostatin-M (LIF/OSM) family of proteins. The encoded preproprotein is proteolytically processed to generate the mature protein. This protein is a secreted cytokine and growth regulator that inhibits the proliferation of a number of tumor cell lines. This protein also regulates the production of other cytokines, including interleukin 6, granulocyte-colony stimulating factor and granulocyte-macrophage colony stimulating factor in endothelial cells. This gene and the related gene, leukemia inhibitory factor, also present on chromosome 22, may have resulted from the duplication of a common ancestral gene. Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed.
Molecular Mass	22 kDa

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Endotoxin	<0.005 EU/μg protein (below level of detection)
Applications	Tumor organoid culture; epithelial organoid culture (WNR media); Stem cell Differentiation into neural and microglial lineages
Storage	Resuspend in water at >100 μg/mL, prepare single use aliquots, add carrier protein if desired and store frozen at -20 or -80 centigrade
Storage Buffer	Lyophilized from acetonitrile, TFA

GENE INFORMATION

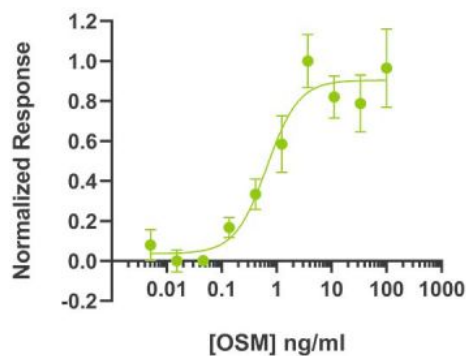
Gene Name	OSM oncostatin M [Homo sapiens (human)]
Official Symbol	OSM
Synonyms	OSM; oncostatin M; oncostatin-M
Gene ID	5008
mRNA Refseq	NM_020530
Protein Refseq	NP_065391
MIM	165095
UniProt ID	P13725

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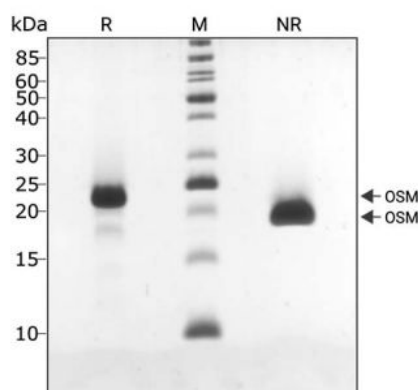
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Bioactivity



OSM activity is determined using the serum response element luciferase reporter assay in transfected HEK293T cells. $EC_{50} = 0.75$ ng/mL (34 pM). Cells are treated in triplicate with a serial dilution of OSM for 6 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity.

Purity



OSM migrates as a single band at 20 kDa in non-reducing conditions and 22 kDa upon reduction (R). The slight band under the main band in the reduced sample is likely an artefact of the reduction protocol. No contaminating protein bands are visible.

Purified recombinant protein was resolved using 15% w/v SDS-PAGE in reduced and non-reduced conditions and stained with Coomassie Brilliant Blue R250.

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