Revision 4

#5371 Store at -20C

Mouse Oncostatin M (mOSM)

25 µg

Cell Signaling TECHNOLOGY®

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MW (kDa):	UniProt ID:	Entrez-Gene Id:
22	#P53347	18413

Background

Oncostatin M (OSM) is a member of the IL-6 family of cytokines that is produced primarily by activated T cells and macrophages (1,2). OSM induces fibroblast proliferation, inhibits tumor cell proliferation, and plays a role in immune regulation (2,3). Mouse OSM binds to the OSM receptor β (OSMRβ) which forms a heteromeric complex with the common IL-6 family receptor subunit, gp130 (4). In contrast, human OSM binds to two distinct receptor complexes, the OSMRβ/gp130 and LIFRβ/gp130 complexes (4). The ability of human OSM to bind to two receptors may explain the overlapping and distinct activities of human OSM and LIF. OSM induces the activation the JAK2, STAT3, and ERK1/2 pathways (5).

Endotoxin

Less than 0.01 ng endotoxin/1 µg mOSM.

Purity

>98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant mOSM. All lots are greater than 98% pure.

Source / Purification

Recombinant mouse OSM (mOSM) Ala24-Arg206 (Accession #NP_001013383) was produced in *E. coli* at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant mOSM was determined in a NIH/3T3 cell proliferation assay. The ED_{50} of each lot is between 0.10-0.40 ng/ml.

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Background References

1. Malik, N. et al. (1989) *Mol Cell Biol* 9, 2847-53.
2. Silver, J.S. and Hunter, C.A. (2010) *J Leukoc Biol* 88, 1145-56.
3. Underhill-Day, N. and Heath, J.K. (2006) *Cancer Res* 66, 10891-901.
4. Ichihara, M. et al. (1997) *Blood* 90, 165-73.
5. Hintzen, C. et al. (2008) *J Immunol* 181, 7341-9.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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