Revision 5

Store at -20C

#5367

Human Oncostatin M (hOSM)

10 µg

Cell Signaling TECHNOLOGY®

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MW (kDa):	UniProt ID:	Entrez-Gene Id:
32	#P13725	5008

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). 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. In contrast, Mouse OSM binds to the OSM receptor β (OSMRβ), which forms a heteromeric complex with the common IL-6 family receptor subunit, gp130 (4). OSM induces activation of the Jak2, Stat3, and Erk1/2 pathways (5).

Endotoxin

Less than 0.01 ng endotoxin/1 µg hOSM.

Purity

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

Source / Purification

Recombinant human Oncostatin M (hOSM) Ala26-Arg221 (Accession #NP_065391) was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant hOSM was determined in a TF-1 cell proliferation assay. The ED_{50} of each lot is between 50-500 pg/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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