

Recombinant Human OSM, Tag Free

■ 基本信息

别称	MGC20461, Oncostatin M.
Gene ID	5008
Accession #	NP_065391.1
蛋白序列	Ala 26 - Arg 252
分子量	25.8 kDa
来源	293T 细胞
生物活性	以下数据来自于小鼠CTLL-2细胞的剂量依赖性实验： ED50: < 0.1 ng/mL 放射性比度: > 1x10 ⁷ units/mg.

■ 组分和存储

产品形式	该蛋白以溶解于 PBS 缓冲液的形式提供。
存储说明	此产品可稳定存在于如下条件中： <ul style="list-style-type: none">• 4°C 保存一周；• -20°C 保存 3 个月。• 请避免多次反复冻融。

■ 质量控制

纯度	≥ 95%，数据来自于 SDS-PAGE 和 HPLC 检测。
内毒素水平	< 0.1 ng/μg

详细 QC 信息请参阅 CoA。

■ 背景介绍

Oncostatin M is also known as OSM, is a glycoprotein belonging to the interleukin-6 family of cytokines that has functions mainly in cell growth. Of these cytokines it most closely resembles leukemia inhibitory factor (LIF) in both structure and function. However, it is as yet poorly defined and is proving important in liver development, haematopoiesis, inflammation and possibly CNS development. It is also associated with bone formation and destruction. OSM signals through cell surface receptors that contain the protein gp130. The type I receptor is

composed of gp130 and LIFR, the type II receptor is composed of gp130 and OSMR. 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, has the ability to 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 pH 2 and 11 and resistant to heating for one hour at 56 degree but is not stable at 90 degrees. The three-dimensional structure of human OSM has been solved to atomic resolution, confirming the predicted long chain four helix bundle topology. Comparing this structure with the known structures of other known LC cytokines shows it to be most closely related to LIF.

参考文献

1. Tanaka M, Miyajima A. Oncostatin M, a multifunctional cytokine. *Rev Physiol Biochem Pharmacol.* 2003;149:39-52. doi: 10.1007/s10254-003-0013-1. Epub 2003 Jun 17. PMID: 12811586.
2. Walker EC, McGregor NE, Poulton IJ, Solano M, Pompolo S, Fernandes TJ, Constable MJ, Nicholson GC, Zhang JG, Nicola NA, Gillespie MT, Martin TJ, Sims NA. Oncostatin M promotes bone formation independently of resorption when signaling through leukemia inhibitory factor receptor in mice. *J Clin Invest.* 2010 Feb;120(2):582-92. doi: 10.1172/JCI40568. Epub 2010 Jan 4. PMID: 20051625; PMCID: PMC2810087.
3. Auguste P, Guillet C, Fourcin M, Olivier C, Veziere J, Pouplard-Barthelaix A, Gascan H. Signaling of type II oncostatin M receptor. *J Biol Chem.* 1997 Jun 20;272(25):15760-4. doi: 10.1074/jbc.272.25.15760. PMID: 9188471.
4. Deller MC, Hudson KR, Ikemizu S, Bravo J, Jones EY, Heath JK. Crystal structure and functional dissection of the cytostatic cytokine oncostatin M. *Structure.* 2000 Aug 15;8(8):863-74. doi: 10.1016/s0969-2126(00)00176-3. PMID: 10997905.

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