**DESCRIPTION**

**Species Reactivity** Mouse

**Specificity** Detects mouse OSM in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human OSM is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** *E. coli*-derived recombinant mouse OSM Ala24-Arg206  
Accession #: P53347

**Endotoxin Level** <0.10 EU per 1 µg of the antibody by the LAL method.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Recommended Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 µg/mL</td>
<td>Recombinant Mouse Oncostatin M/OSM (Catalog #: 495-MO)</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>5-15 µg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td>Neutralization</td>
<td></td>
<td>Measured by its ability to neutralize Oncostatin M/OSM-induced proliferation in the NIH-3T3 mouse embryonic fibroblast cell line. The Neutralization Dose (ND$_{50}$) is typically 0.6-3.0 µg/mL in the presence of 15 ng/mL Recombinant Mouse Oncostatin M/OSM.</td>
</tr>
</tbody>
</table>

**DATA**

**Immunohistochemistry**

Oncostatin M/OSM in Mouse Embryo. Oncostatin M/OSM was detected in immersion fixed frozen sections of mouse embryo (15.5 p.c., section through spinal cord) using Mouse Oncostatin M/OSM Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-495-NA) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog #: CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

**Neutralization**

Cell Proliferation Induced by Oncostatin M/OSM and Neutralization by Mouse Oncostatin M/OSM Antibody. Recombinant Mouse Oncostatin M/OSM (Catalog # 495-MO) stimulates proliferation in the NIH-3T3 mouse embryonic fibroblast cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Mouse Oncostatin M/OSM (15 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Oncostatin M/OSM Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-495-NA). The ND$_{50}$ is typically 0.6-3.0 µg/mL.
**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C*

**Stability & Storage**
- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Oncostatin M (OSM) is a member of a cytokine subfamily that includes IL-6, IL-11, LIF, CNTF, and cardiotrophin-1. These cytokines have overlapping biological functions and shared receptor components. Mouse OSM was cloned and identified as an immediate early gene induced in various myeloid and lymphoid cell lines by a subset of cytokines including IL-2, IL-3, GM-CSF, and EPO. The mouse OSM cDNA encodes a 263 amino acid residue precursor protein that shows 48% identity with human OSM. Similar to human OSM, the C-terminal region of mouse OSM contains a highly charged region. Deletion of this C-terminal region appears to be essential for the formation of biologically active mOSM.

The biological activity of human OSM has been shown to be mediated either by the LIF/OSM receptor complex composed of gp130 and LIF Rα or by a human OSM specific receptor composed of gp130 and OSM Rα. It remains to be determined if the biological activities of mouse OSM can also be mediated by both receptor complexes in mouse cells.

**References:**