

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human gp130 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant rat gp130, recombinant mouse gp130, recombinant human (rh) IL-1 sRI, rhIL-1 sRII, rhIL-2 sRβ, rhIL-2 sRγ, rhIL-4 sR, and rhIL-6 sR is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant human gp130 Leu24-Glu619 (Glu619Asp) Accession # P40189
<b>Endotoxin Level</b>	<0.70 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	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.

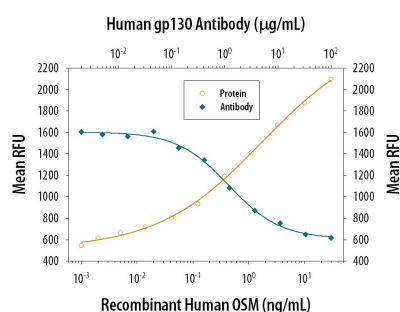
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	HeLa human cervical epithelial carcinoma cell line
<b>Neutralization</b>	Measured by its ability to neutralize Oncostatin M/OSM-induced proliferation in the TF-1 human erythroleukemic cell line. Kitamura, T. <i>et al.</i> (1989) J. Cell Physiol. <b>140</b> :323. The Neutralization Dose (ND <sub>50</sub> ) is typically 2-10 µg/mL in the presence of 0.8 ng/mL Recombinant Human Oncostatin M/OSM.	

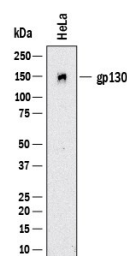
## DATA

### Neutralization



**Cell Proliferation Induced by Oncostatin M/OSM and Neutralization by Human gp130 Antibody.** Recombinant Human Oncostatin M/OSM (Catalog # Catalog # 295-OM) stimulates proliferation in the TF-1 human erythroleukemic cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human Oncostatin M/OSM (0.8 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human gp130 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-228-NA). The ND<sub>50</sub> is typically 2-10 µg/mL.

### Western Blot



**Detection of Human gp130 by Western Blot.** Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human gp130 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-228-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for gp130 at approximately 150kDa kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Gp130, the common signal transducing receptor component shared by the functional receptor complexes of the IL-6 family of cytokines, belongs to the class I cytokine receptor family. Binding of IL-6 (IL-11) to either the membrane-anchored or soluble IL-6 R (IL-11 R) initiates the association of IL-6 R (IL-11 R) with gp130 which then undergoes homo-dimerization and signal transduction. With other IL-6 family cytokines, such as LIF and OSM, signal transduction is triggered by the hetero-dimerization of gp130 and LIF R or OSM R.

Gp130 is expressed in all organs examined. Soluble gp130, which apparently arises either from proteolytic cleavage of the membrane-bound receptor or from alternative splicing, has been detected in human serum. At the present time, the *in vivo* functions of soluble gp130 are not clearly understood. In *in vitro* experiments, natural or recombinant soluble gp130 has been shown to have inhibitory effects on OSM and CNTF activities.

#### References:

1. Narazaki, M. *et al.* (1993) Blood **82**:1120.
2. Taga, T. and T. Kishimoto (1997) Annu. Rev. Immunol. **15**:797.