# Mouse gp130 Antibody

Monoclonal Rat $IgG_1$ Clone # 125605

Catalog Number: MAB4682

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Mouse |
| **Specificity** | Detects mouse gp130 ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant human gp130, recombinant mouse (rm) rmIL-6, or rmIL-6R is observed. |
| **Source** | Monoclonal Rat $IgG_1$ Clone # 125605 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant mouse gp130<br>Gln23-Glu617<br>Accession # Q00560 |
| **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.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

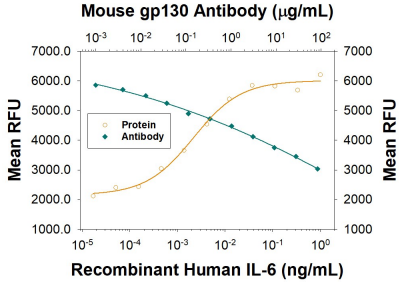
## APPLICATIONS

**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.*

| ***Mouse gp130 Sandwich Immunoassay*** | | **Reagent** |
|---|---|---|
| **ELISA Capture** | 2-8 µg/mL | Mouse gp130 Antibody (Catalog # MAB4682) |
| **ELISA Detection** | 0.1-0.4 µg/mL | Mouse gp130 Biotinylated Antibody (Catalog # BAF468) |
| **Standard** | | Recombinant Mouse gp130 Fc Chimera (Catalog # 468-MG) |
| **Neutralization** | Measured by its ability to neutralize IL-6-mediated proliferation of the 7TD1 mouse hybridoma line. The Neutralization Dose ($ND_{50}$) is typically 0.15-1 µg/mL in the presence of 25 pg/mL Recombinant Human IL-6 (Catalog # 206-IL). | |

## DATA

**Neutralization**




**Cell Proliferation Induced by Human IL-6 and Neutralization by Mouse gp130 Antibody.** Recombinant Human IL-6 (Catalog # 206-IL) stimulates proliferation in the 7TD1 mouse hybridoma line. (orange line). Proliferation elicited by Recombinant Human IL-6 (25 pg/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse gp130 Monoclonal Antibody (Catalog # MAB4682). The $ND_{50}$ is typically 0.15-1 µg/mL.

## PREPARATION AND STORAGE

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|---|---|
| **Reconstitution** | Reconstitute at 0.5 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*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.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## 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. 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.



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