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 Gln23-Glu617 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. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

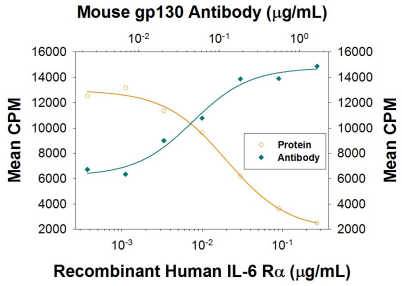
APPLICATIONS

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 Rα-induced growth inhibition in the M1 mouse myeloid leukemia cell line. Saito, T. *et al*. (1991) J. Immunol. **147**:168. The Neutralization Dose (ND_{50}) is typically 0.02-0.1 µg/mL in the presence of 30 ng/mL Recombinant Human IL-6 Rα and 30 ng/mL Recombinant Human IL-6.

DATA

Neutralization



Growth Inhibition Induced by IL-6 Rα and Neutralization by Mouse gp130 Antibody. Recombinant Human IL-6 Rα (Catalog # 227-SR) induces growth inhibition in the M1 mouse myeloid leukemia cell line in the presence of 30 ng/mL of Recombinant Human IL-6 (Catalog # 206-IL) in a dose-dependent manner (orange line), as measured ^{3}H-Thymidine incorporation. Growth Inhibition elicited by Recombinant Human IL-6 Rα (30 ng/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse gp130 Monoclonal Antibody (Catalog # MAB4682). The ND_{50} is typically 0.02-0.1 µg/mL.

PREPARATION AND STORAGE

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. *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

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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