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# Product Information

**Monoclonal Anti-Hepatocyte Growth Factor**
**Clone 24612.111**
produced in mouse, purified immunoglobulin

Catalog Number **H1896**

## Product Description

Monoclonal Anti-Hepatocyte Growth Factor (HGF) (IgG1 isotype) is purified from a mouse hybridoma using recombinant human hepatocyte growth factor (rhHGF), expressed in the insect cell line *Sf* 21, as the immunogen. The antibody is purified using Protein A affinity chromatography.

Monoclonal Anti-Hepatocyte Growth Factor recognizes human HGF. The antibody may be used in neutralization of bioactivity and immunoblotting.

Hepatocyte Growth Factor, also known as Scatter Factor (SF) and Hepatopoietin A, is a pleiotropic growth factor produced by mesodermally derived cells, such as Kupffer cells/macrophages, endothelial cells, and hepatic fat storing cells. HGF stimulates hepatocytes and other epithelial and endothelial cells to various biological actions, including mitogenic, morphogenic and motogenic activity.[1-3]

## Reagent

Supplied lyophilized from a 0.2 um filtered solution of phosphate buffered saline with 5% trehalose.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Preparation instructions

To one vial of lyophilized powder, add 1 mL of sterile-filtered PBS to produce a 500 μg/mL stock solution. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

## Storage

Prior to reconstitution, store at –20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing.

## Procedure

Monoclonal Anti-Human HGF was tested for its ability to neutralize the bioactivity of rhHGF in a cell proliferation assay using 4MBr-5 cells, a monkey epithelial cell line responsive to HGF.[4] The $ND_{50}$ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhHGF that is present at a concentration just high enough to elicit a maximum response. In this bioassay, 100 ng/mL rhHGF was preincubated with various dilutions of the antibody for 1 hour at 22 °C, then placed in a 96-well plate. 4MBr-5 cells were added to each well and incubated for 48 hours at 37°C in a 5% $CO_2$ humidified incubator and then pulsed for the last 24 hours with $^3$H-thymidine. Cells were harvested onto glass filters and the $^3$H-thymidine incorporation into DNA was measured.

## Product Profile

ELISA: a working concentration of 0.5-1μg/mL is recommended to detect ~2 ng/well of rhHGF.

Immunoblotting: a working concentration of 1-2 μg/mL detects rhHGF at ~25 ng/lane under non-reducing conditions using a colorimetric detection system. Use of this antibody under reducing conditions is not recommended. Chemiluminescent detection will increase sensitivity by 5 to 50 fold.

Endotoxin: < 0.1 EU/μg antibody as determined by the LAL method.

## References

1. Nakamura, T., et al., *Proc. Natl. Acad. Sci. USA*, **83**, 6489 (1986).
2. Strain, A., *J. Endocrinol*., **137**, 1 (1993).
3. Stoker, M., et al., *Nature*, **327**, 239 (1987).
4. Rubin, J., et al., *Proc. Natl. Acad. Sci. USA*, **88**, 415 (1991).

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