Product Information

Anti-Hepatocyte Growth Factor
produced in goat, affinity isolated antibody

Catalog Number H7157

Product Description
Anti-Hepatocyte Growth Factor is produced in goat using recombinant human HGF (rhHGF) expressed in SF 21 as immunogen. The antibody is purified using human HGF affinity chromatography.

Anti-Hepatocyte Growth Factor will neutralize the biological activity of rhHGF. The antibody may also be used in immunoblotting and immunohistochemistry.

Hepatocyte Growth Factor (HGF), also known as Hepatopoetin A and Scatter Factor, is a potent mitogen for epithelial cells. HGF has a molecular weight of 82-85 kDa. HGF stimulates the growth of hepatocytes, renal tubular epithelial cells, epidermal keratinocytes, epidermal melanocytes, Mv1Lu (mink lung epithelial cells) and BALB/MK (mouse keratinocytes). HGF inhibits the growth of B6/F1 (mouse melanoma) cells, KB (human squamous carcinoma) cells and HepG2 (human hepatoma) cells. The HGF gene spans ~70 kb and consists of 18 exons interrupted by 17 introns. The organization of the human HGF gene is highly homologous to that of human plasminogen. HGF maps to the long arm of chromosome 7, 7q21.1.

Reagent
Supplied as a lyophilized powder from a 0.2 µm filtered solution of phosphate buffered saline, pH 7.4, containing 5% trehalose.

Endotoxin: <10 ng/mg by LAL method

Preparation Instructions
To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered PBS to produce a 0.1 mg/ml stock solution. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Procedure
Anti-HGF is tested for its ability to neutralize the bioactivity of rhHGF in a cell proliferation assay using 4MBr cells, a monkey epithelial cell line responsive to HGF. The ND<sub>50</sub> 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 is preincubated with various dilutions of the antibody for 1 hour at 37 °C, then placed in a 96-well microtiter plate. 4MBr-5 cells are added to each well and incubated for 48 hours at 37 °C in a 5% CO<sub>2</sub> humidified incubator and then pulsed for the last 24 hours with <sup>3</sup>H-thymidine. Cells are harvested onto glass filters and the <sup>3</sup>H-thymidine incorporation into DNA is measured.

Results
Bioactivity: ND<sub>50</sub> = 0.2 – 0.6 µg/ml
Indirect Immunoblotting: 0.1-0.2 µg/ml antibody detects rhHGF at 25 ng/lane under non-reducing and reducing conditions.
Immunohistochemistry: 15 µg/mL using formalin-fixed, paraffin-embedded human tissue sections

References