

# HGF (H-170): sc-13087

## BACKGROUND

Hepatocyte growth factor, or HGF, is a pleiotropic growth factor variously designated as scatter factor, hematopoietin A and mammary growth factor. HGF is synthesized as a single chain, 728 amino acid precursor with a 29 amino acid signal peptide which is not present in the mature protein. Biologically active HGF is composed of a disulfide linked  $\alpha$  chain and a  $\beta$  chain, both of which are highly glycosylated. HGF exerts its biological effects through the HGF receptor, c-Met, which is expressed by normal hepatocytes, gastric and intestinal epithelium, ovarian and endometrial endothelium and in the basal layers of skin. While c-Met is not thought to be expressed in normal lung, thyroid or pancreatic tissue, c-Met has been detected in tumors originating from such tissue. The c-Met proto-oncogene encodes a 1,408 amino acid glycoprotein that represents the prototypic member of a novel family of receptor tyrosine kinases (RTKs) that include Ron, Sea and Sex.

## REFERENCES

1. Miyazawa, K., et al. 1994. Proteolytic activation of hepatocyte growth factor in response to tissue injury. *J. Biol. Chem.* 269: 8966-8970.
2. Niranjan, B., et al. 1995. HGF/SF: a potent cytokine for mammary growth, morphogenesis and development. *Development* 121: 2897-2908.
3. Naldini, L., et al. 1995. Biological activation of pro-HGF (hepatocyte growth factor) by urokinase is controlled by a stoichiometric reaction. *J. Biol. Chem.* 270: 603-611.
4. Ferracini, R., et al. 1995. The Met/HGF receptor is over-expressed in human osteosarcomas and is activated by either a paracrine or an autocrine circuit. *Oncogene* 10: 739-749.
5. Tuck, A.B., et al. 1996. Coexpression of hepatocyte growth factor and receptor (Met) in human breast carcinoma. *Am. J. Pathol.* 148: 225-232.

## CHROMOSOMAL LOCATION

Genetic locus: HGF (human) mapping to 7q21.11; Hgf (mouse) mapping to 5 A2.

## SOURCE

HGF (H-170) is a rabbit polyclonal antibody raised against amino acids 1-170 of HGF of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

HGF (H-170) is recommended for detection of HGF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HGF (H-170) is also recommended for detection of HGF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HGF $\alpha$ / $\beta$  siRNA (h): sc-37111, HGF $\alpha$ / $\beta$  siRNA (m): sc-37112, HGF $\alpha$ / $\beta$  shRNA Plasmid (h): sc-37111-SH, HGF $\alpha$ / $\beta$  shRNA Plasmid (m): sc-37112-SH, HGF $\alpha$ / $\beta$  shRNA (h) Lentiviral Particles: sc-37111-V and HGF $\alpha$ / $\beta$  shRNA (m) Lentiviral Particles: sc-37112-V.

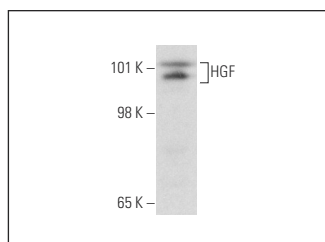
Molecular Weight of HGF precursor: 91 kDa.

Molecular Weight of HGF  $\alpha$  chain: 64 kDa.

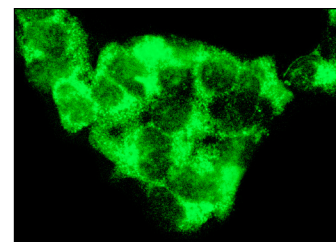
Molecular Weight of HGF  $\beta$  chain: 34 kDa.

Positive Controls: JAR cell lysate: sc-2276.

## DATA



HGF (H-170): sc-13087. Western blot analysis of HGF expression in JAR whole cell lysate.



HGF (H-170): sc-13087. Immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Nayeri, F., et al. 2006. Autocrine production of biologically active hepatocyte growth factor (HGF) by injured human skin. *J. Dermatol. Sci.* 43: 49-56.
2. Laliena, A., et al. 2012. Melatonin attenuates inflammation and promotes regeneration in rabbits with fulminant hepatitis of viral origin. *J. Pineal Res.* 53: 270-8.
3. Kozono, S., et al. 2013. Pirfenidone inhibits pancreatic cancer desmoplasia by regulating stellate cells. *Cancer Res.* 73: 2345-2356.

**MONOS**  
Satisfaction  
Guaranteed

Try **HGF (3F203): sc-71244**, our highly recommended monoclonal alternative to HGF (H-170).