

HGF α (B-3): sc-166724

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 α chain and a β 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. Niranjana, 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.

CHROMOSOMAL LOCATION

Genetic locus: HGF (human) mapping to 7q21.11.

SOURCE

HGF α (B-3) is a mouse monoclonal antibody raised against amino acids 32-176 of HGF α of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HGF α (B-3) is recommended for detection of HGF α of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

Suitable for use as control antibody for HGF α / β siRNA (h): sc-37111, HGF α / β shRNA Plasmid (h): sc-37111-SH and HGF α / β shRNA (h) Lentiviral Particles: sc-37111-V.

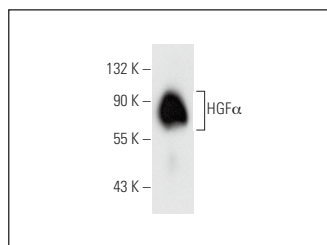
Molecular Weight of HGF α : 69 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

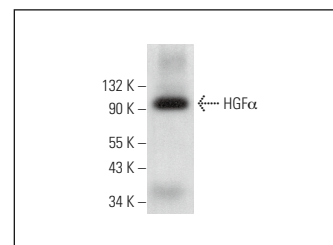
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HGF α (B-3): sc-166724. Western blot analysis of full length human recombinant HGF α .



HGF α (B-3): sc-166724. Western blot analysis of HGF α expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Casbas-Hernandez, P., et al. 2013. Role of HGF in epithelial-stromal cell interactions during progression from benign breast disease to ductal carcinoma *in situ*. *Breast Cancer Res.* 15: R82.
2. Bladt, F., et al. 2014. The c-Met inhibitor MSC2156119J effectively inhibits tumor growth in liver cancer models. *Cancers* 6: 1736-1752.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **HGF α (H-10): sc-374422** for HGF α antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.