SANTA CRUZ BIOTECHNOLOGY, INC.

# HGFβ (SBF5 C1.7): sc-53301

## 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 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. 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.
6. Huff, J.L., et al. 1996. Expression and maturation of the cellular sea receptor, a member of the hepatocyte growth factor (HGF) receptor family of protein tyrosine kinases. Oncogene 12: 299-307.
7. Maestrini, E., et al. 1996. A family of transmembrane proteins with homology to the MET-hepatocyte growth factor receptor. Proc. Natl. Acad. Sci. USA 93: 674-678.


## CHROMOSOMAL LOCATION

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

## SOURCE

HGFβ (SBF5 C1.7) is a mouse monoclonal antibody raised against recombinant HGFβ of human origin.

## STORAGE

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

## PROTOCOLS

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

## PRODUCT

Each vial contains 200 µg $IgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HGFβ (SBF5 C1.7) is available conjugated to agarose (sc-53301 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53301 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53301 PE), fluorescein (sc-53301 FITC), Alexa Fluor® 488 (sc-53301 AF488), Alexa Fluor® 546 (sc-53301 AF546), Alexa Fluor® 594 (sc-53301 AF594) or Alexa Fluor® 647 (sc-53301 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53301 AF680) or Alexa Fluor® 790 (sc-53301 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

HGFβ (SBF5 C1.7) is recommended for detection of HGFβ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

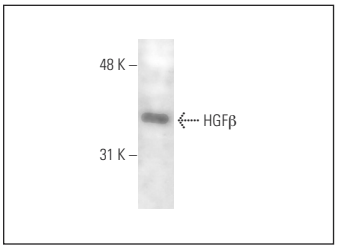
Molecular Weight of HGF precursor: 91 kDa.

Molecular Weight of HGF α chain: 64 kDa.

Molecular Weight of HGF β chain: 34 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

## DATA




HGFβ (SBF5 C1.7): sc-53301. Western blot analysis of HGFβ expression in ECV304 whole cell lysate.

## RESEARCH USE

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