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HGF Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1724B

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	P14210
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	83134
Antigen Region	521-554

Additional Information

Gene ID	3082
Other Names	Hepatocyte growth factor, Hepatopoietin-A, Scatter factor, SF, Hepatocyte growth factor alpha chain, Hepatocyte growth factor beta chain, HGF, HPTA
Target/Specificity	This HGF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 521-554 amino acids from the C-terminal region of human HGF.
Dilution	WB~~1:1000 FC~~1:10~50 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HGF Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HGF
Synonyms	HPTA
Function	Potent mitogen for mature parenchymal hepatocyte cells, seems to be a hepatotrophic factor, and acts as a growth factor for a broad spectrum of

tissues and cell types (PubMed:20624990). Activating ligand for the receptor tyrosine kinase MET by binding to it and promoting its dimerization (PubMed:15167892, PubMed:20977675). Activates MAPK signaling following TMPRSS13 cleavage and activation (PubMed:20977675).

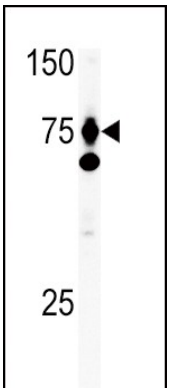
Background

Hepatocyte growth factor regulates cell growth, cell motility, and morphogenesis by activating a tyrosine kinase signaling cascade after binding to the proto-oncogenic c-Met receptor. Hepatocyte growth factor is secreted by mesenchymal cells and acts as a multi-functional cytokine on cells of mainly epithelial origin. Its ability to stimulate mitogenesis, cell motility, and matrix invasion gives it a central role in angiogenesis, tumorogenesis, and tissue regeneration. It is secreted as a single inactive polypeptide and is cleaved by serine proteases into a 69-kDa alpha-chain and 34-kDa beta-chain. A disulfide bond between the alpha and beta chains produces the active, heterodimeric molecule. The protein belongs to the plasminogen subfamily of S1 peptidases but has no detectable protease activity. Alternative splicing of this gene produces multiple transcript variants encoding different isoforms. Transcript Variant: This variant (1) encodes the longest isoform (1). To date, experimental evidence for cleavage of the proprotein into two mature chains has been shown only for isoform 1.

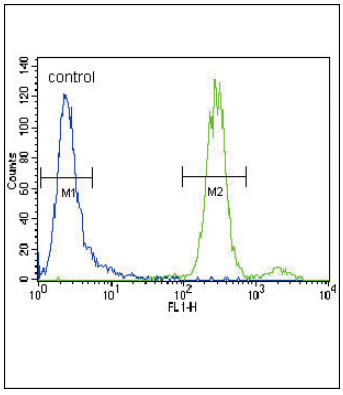
References

Ryugo, M., et al., Transplantation 78(8):1153-1158 (2004).
Lyon, M., et al., J. Biol. Chem. 279(42):43560-43567 (2004).
He, Y., et al., World J. Gastroenterol. 10(19):2827-2830 (2004).
Tjin, E.P., et al., Blood 104(7):2172-2175 (2004).
Matsuda-Hashii, Y., et al., Exp. Hematol. 32(10):955-961 (2004).

Images

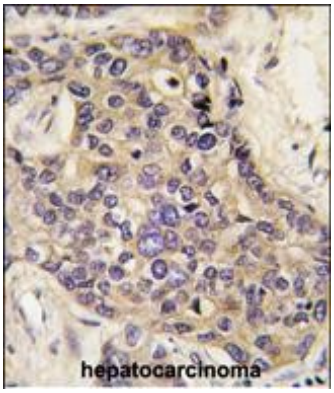


The anti-HGF Pab (Cat.# AP1724b) is used in Western blot to detect HGF in Ramos tissue lysate. HGF (arrow) was detected using the purified Pab.



HGF Antibody (C-term) (Cat. #AP1724b) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Formalin-fixed and paraffin-embedded human



hepatocarcinoma tissue reacted with HGF antibody (C-term) (Cat.#AP1724b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Hepatocyte growth factor/cMET pathway activation enhances cancer hallmarks in adrenocortical carcinoma.
- Activated platelets interfere with recruitment of mesenchymal stem cells to apoptotic cardiac cells via high mobility group box 1/Toll-like receptor 4-mediated down-regulation of hepatocyte growth factor receptor MET.