Datasheet for ABIN7535927

HGF Protein (His tag)

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Overview

Quantity:	100 µg
Target:	HGF
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This HGF protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse Hepatocyte growth factor/HGF Protein
Sequence:	QKKRRNTLHE FKKSAKTTLT KEDPLLKIKT KKVNSADECA NRCIRNRGFT FTCKAFVFDK SRKRCYWYPF NSMSSGVKKG FGHEFDLYEN KDYIRNCIIG KGGSYKGTVS ITKSGIKCQP WNSMIPHEHS FLPSSYRGKD LQENYCRNPR GEEGGPWCFT SNPEVRYEVC DIPQCSEVEC MTCNGESYRG PMDHTESGKT CQRWDQQTPH RHKFLPERYP DKGFDDNYCR NPDGKPRPWC YTLDPDTPWE YCAIKTCAHS AVNETDVPME TTECIQGQGE GYRGTSNTIW NGIPCQRWDS QYPHKHDITP ENFKCKDLRE NYCRNPDGAE SPWCFTTDPN IRVGYCSQIP KCDVSSGQDC YRGNGKNYMG NLSKTRSGLT CSMWDKNMED LHRHIFWEPD ASKLNKNYCR NPDDDAHGPW CYTGNPLIPW DYCPISRCEG DTTPTIVNLD HPVISCAKTK QLRVVNGIPT QTTVGWMVSL KYRNKHICGG SLIKESWVLT ARQCFPARNK DLKDYEAWLG IHDVHERGEE KRKQILNISQ LVYGPEGSDL VLLKLARPAI LDNFVSTIDL PSYGCTIPEK TTCSIYGWGY TGLINADGLL RVAHLYIMGN EKCSQHHQGK VTLNESELCA GAEKIGSGPC EGDYGGPLIC EQHKMRMVLG VIVPGRGCAI PNRPGIFVRV AYYAKWIHKV ILTYKL

Product Details

Specificity:	Gln33-Leu728
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	<1EU/µg
Biological Activity Comment:	Measured in a cell proliferation assay using Mv.1.lu cells. The ED_{50} for this effect is 1.8-7.2 ng/mL,corresponding to a specific activity of $1.4x10^5$ ~ $5.6x10^5$ units/mg.

Target Details

Target:	HGF
Alternative Name:	Hepatocyte growth factor/HGF (HGF Products)
Background:	Description: HGF, also known as Scatter Factor and Hepatopoietin A, is a pleiotropic protein in the Plasminogen subfamily of S1 peptidases. It is a multidomain molecule that includes an N-terminal PAN/APPLE-like domain, four Kringle domains, and a serine proteinase-like domain that has no detectable protease activity. Mouse HGF is secreted as an inactive 728 amino acid (aa) single chain propeptide. It is cleaved after the fourth Kringle domain by a serine protease to form bioactive disulfide-linked HGF with a 60 kDa alpha and 30 kDa beta chain. Alternate splicing generates an isoform that lacks the peptidase and the second, third, and fourth Kringle domains. Mouse HGF shares 91 % -95 %aa sequence identity with bovine, canine, feline, human, and rat HGF. HGF binds heparan-sulfate proteoglycans and the widely expressed receptor tyrosine kinase, HGF R/c-MET. HGF dependent c-MET activation is implicated in the development of many human cancers. HGF regulates epithelial morphogenesis by inducing cell scattering and branching tubulogenesis. HGF induces the up regulation of integrin alpha 2 beta 1 in epithelial cells by a selective increase in alpha 2 gene transcription. This integrin serves as a collagen I receptor, and its blockade disrupts epithelial cell branching tubulogenesis. HGF can also alter epithelium morphology by the induction of nectin-1 alpha ectodomain shedding, an adhesion protein component of adherens junctions. In the thyroid, HGF induces the proliferation, motility, and loss of differentiation markers of thyrocytes and inhibits TSH-stimulated iodine uptake. HGF promotes the motility of cardiac stem cells in damaged myocardium. Name: SF, NK1, NK2, HGF/SF, SF/HGF, C230052L06Rik,HGF
Gene ID:	15234
UniProt:	Q08048

Target Details

Pathways:	RTK Signaling, Carbohydrate Homeostasis, Glycosaminoglycan Metabolic Process, Synaptic Membrane, Signaling of Hepatocyte Growth Factor Receptor

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.
Concentration:	0.88 mg/mL
Buffer:	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.
Storage:	-20 °C,-80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for 12 months.|After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.