Human HGF protein, GST tag (active)

Cat. No. GTX00205-pro

Applications	Functional Assay
Species	Human

Package
10 µg

Applications

Application Note

Hepatocyte growth factor (HGF) is a paracrine cellular growth, motility and morphogenic factor. It is secreted by mesenchymal cells and targets and acts primarily upon epithelial cells and endothelial cells, but also acts on haemopoietic progenitor cells and T cells. It has been shown to have a major role in embryonic organ development, specifically in myogenesis, in adult organ regeneration, and in wound healing. Besides, Heparan sulfate proteogly (HSPG) can has been identified as an interactor of HGF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human HGF and recombinant human HSPG. Briefly, HGF were diluted serially in PBS, with 0. 01% BSA (pH 7. 4). Duplicate samples of 100 µl were then transferred to HSPG-coated microtiter wells and incubated for 2h at 37ºC. Wells were washed with PBST and incubated for 1h with anti-HGF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37ºC. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of HGF and HSPG was in a dose dependent manner.
To test the effect of HGF on cell proliferation of HepG2 cell line, cells were seeded into triplicate wells of 96-well plates at a density of 2000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of HGF. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µl of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after incubating the plate for 1-4 hours at 37ºC.

Observed MW (kDa)	55 kDa.

Properties

Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4ºC. For long-term storage, store at -20ºC or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal GST-Tag; Gln32~Asn291 (NP_000592.3)
Expression System	E. coli
Purity	> 95%
Endotoxin	< 1 EU/µg
Conjugation	Unconjugated
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

For full product information, images and publications, please visit our website.

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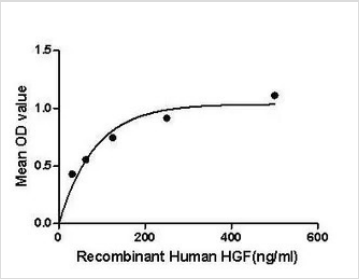
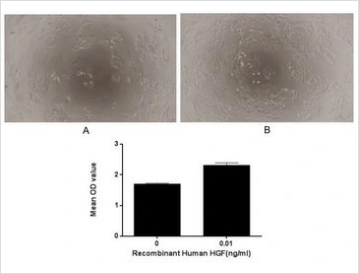
DATA IMAGES



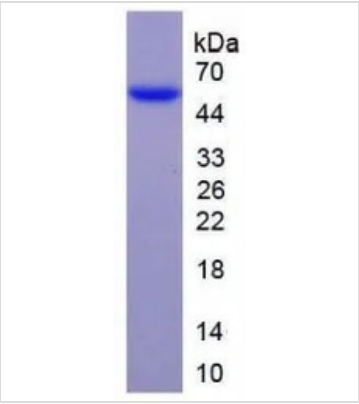
GTX00205-pro Functional Assay Image

Functional ELISA analysis of GTX00205-pro Human HGF protein (active) which can bind immobilized HSPG protein.



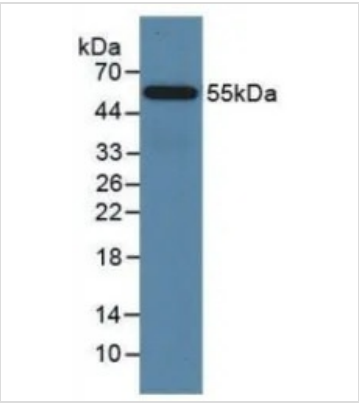
GTX00205-pro Functional Assay Image

Cell proliferation effect of GTX00205-pro Human HGF protein (active). Cell viability was measured by Cell Counting Kit-8 (CCK-8).
(A) Unstimulated HepG2 cells cultured in DMEM for 72hrs.
(B) HepG2 cells cultured in DMEM, stimulated with 0.01 ng/ml HGF for 72hrs.



GTX00205-pro Image

SDS-PAGE analysis of GTX00205-pro Human HGF protein (active).



GTX00205-pro Image

WB analysis of GTX00205-pro Human HGF protein (active).

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