APA047Mu01 10μg
Active Hepatocyte Growth Factor (HGF)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asp482~Val695
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 800μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.0
Predicted Molecular Mass: 25.0kDa
Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

DHPVISCAKTKQLRVVNGIPTQTTVGWMVSLKYRNKHICGGSLIKESWVLTARQCFPARNKDLKDYEAWLGI
HDVHERGEEKRKQILNISQLVYGPEGSDLVLLKLARPAILDNFVSTIDLPSYGCTIPEKTTCSIYGWGYTGL
INADGLLRVAHLYIMGNEKCSQHHQGKVTLNESELCAGAEKIGSGPCEGDYGGPLICEQHKMRMVLGVIV

[ACTIVITY]

Hepatocyte Growth Factor (HGF), also known as scatter factor, is a pleiotropic cytokine primarily produced by mesenchymal cells. It plays crucial roles in embryonic development, tissue regeneration, and wound healing by mediating cell proliferation, motility, and morphogenesis. HGF is synthesized as an inactive single-chain precursor (pro-HGF) that is proteolytically cleaved to form the active heterodimer. Its signaling is vital in organogenesis and contributes to pathological processes like cancer metastasis when dysregulated. HGF binds specifically to its receptor, HGFR (c-MET), triggering intracellular pathways that promote cellular responses including proliferation and migration.To detect the activity of recombinant HGF a functional ELISA assay was performed to evaluate the interaction between recombinant mouse HGF and recombinant human HGFR.Briefly, HGF was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to HGFR-coated microtiter wells and incubated for 1h at 37℃. 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 for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant mouse HGF and recombinant

human HGFR was shown in Figure 1, the EC50 for this effect is 0.12μg/mL.

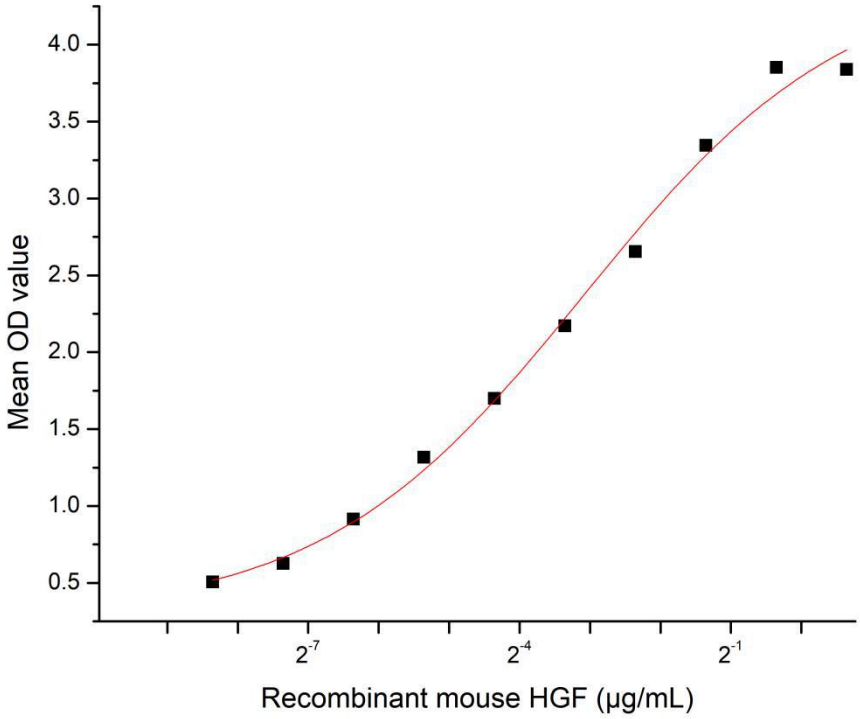

Figure 1. The binding activity of recombinant mouse HGF and recombinant human HGFR

[IDENTIFICATION]

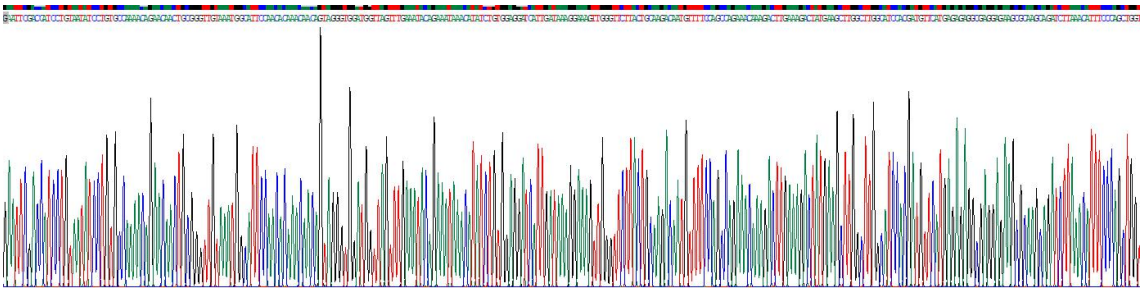

Figure 2. Gene Sequencing (extract)

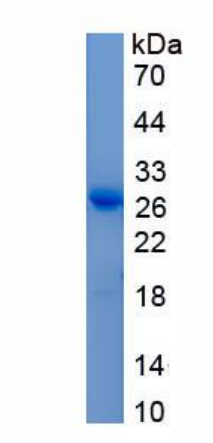

Figure 3. SDS-PAGE

Sample: Active recombinant HGF, Mouse

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.