Mouse HGF / Hepatocyte Growth Factor Protein (His Tag)

Catalog Number: **50038-M08H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

HGF

Protein Construction:

A DNA sequence encoding the mouse HGF (Q08048-1) (Met1-Leu728) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 70 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to neutralize TGF-beta mediated inhibition on Mv-1-Lu cell proliferation.
The ED50 for this effect is typically 1-8 ng/mL.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 33

Molecular Mass:

The recombinant mouse HGF comprises 707 amino acids and has a predicted molecular mass of 80.8 kDa. The apparent molecular mass of the protein is approximately 92 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

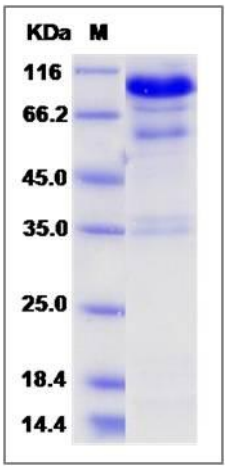
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Hepatocyte growth factor (HGF), also known as Scatter factor, is a paracrine cellular growth, motility and morphogenic factor. Hepatocyte Growth Factor/HGF is a member of the peptidase S1 family, and is derived from a single chain precursor of 728 amino acid residues containing 4 kringle domains, 1PAN domain and 1peptidase S1 domain. The synthesized single chain of HGF is further processed into a bioactive heterodimer composed of the 69 kDa α-subunit and the 34 kDa β-subunit by a serine protease. Hepatocyte Growth Factor/HGF has no detectable protease activity. Alternative splicing of its gene produces multiple transcript variants encoding different isoforms. It is secreted by mesenchymal cells and targets and acts primarily upon epithelial cells and endothelial cells, as well as haemopoietic progenitor cells. Hepatocyte Growth Factor/HGF regulates cell growth, cell motility, and morphogenesis by activating a tyrosine kinase signaling cascade after binding to the c-Met receptor. Hepatocyte Growth Factor/HGF may also play an important role as a paracrine or endocrine mediator through an epithelial-mesenchymal interaction in wound-healing, tissue or organ regeneration, morphogenesis and carcinogenesis.

References

1. Naldini L. et al.,1991, EMBO J.?(ENGLAND)?10?(10): 2867-78.
2. Nakamura T. et al., 1992, Prog Growth Factor Res.?3?(1): 67-85.
3. Comoglio PM. et al., 1993, EXS.?(SWITZERLAND)?65: 131-65.
4. Skibinski G. et al., 2004, Arch Immunol Ther Exp. 51?(5): 277-82.
5. Kemp LE. et al., 2006, Biochem Soc Trans.?34?(3): 414-7.