



Recombinant Human Hepatocyte growth factor receptor (MET), partial (Active)

Product Code	CSB-MP013714HU
Abbreviation	Recombinant Human MET protein, partial (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P08581
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Biological Activity	①Measured by its binding ability in a functional ELISA. Immobilized MET at 2 µg/ml can bind Anti-MET recombinant antibody, the EC ₅₀ is 2.379-3.094 ng/ml.
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	<p> ECKEALAKSEMNVNMKYQLPNFTAETPIQNVILHEHHIFLGATNYIYVLNEEDLQ KVAEYKTGPVLEHPDCFCQDCSSKANLSGGVWVDNINMALVVDTYDDQLI SCGSVNRGTCQRHVFPNHHTADIQSEVHCIFSPQIEEPSQCPDCVVSALGAKV LSSVKDRFINFFVGNTINSSYFPDHPHLSISVRRLKETKDGFMFLTDQSYIDVLP EFRDSYPIKYVHAFESNNFIYFLTVQRETLDAQTFHTRIIRFCSINSGLHSEMEM PLECILTEKRKKRSTKKEVFNILQAAYVSKPGAQLARQIGASLNDDILFGVFAQS KPDSAEPMDRSAMCAFPKIYVNDFFNKIVNKNVNRCLQHFYGPNHEHCFNRT LLRNSSGCEARRDEYRTEFTTALQRVDLFMGQFSEVLLTSISTFIKGDILTIANLG TSEGRFMQVVVSRSGPSTPHVNFLLDHPVSPVIVEHTLNQNGYTLVITGKKI TKIPLNGLGCRHFQSCSQCLSAPPFVQCGWCHDKCVRSEECLSGTWTQQICL PAIYKVFNPNSAPLEGGTRLTICGWDFGFRNKNKFDLKKTRVLLGNESCTLTLS STMNTLKCTVGPAMNKHFNMSIIISNGHGTTQYSTFSYVDPVITSISPKYGPMA GGTLTTLTGNYLNSGNSRHISIGGKTCTLKSVSNSILECYTPAQTISTEFAVKLKI DLANRETSIFSYPREDPIYIEIHPTKSFISGGSTITGVGKNLNSVSVPRMVINVHE AGRNFTVACQHRSNSEIICCTTPSLQQLNLQLPLKTKAFFMLDGILSKYFDLIYV HNPVFKPFKPMISMGNENVLEIKGNDIDPEAVKGEVLKVGKNSCENIHLHSE AVLCTVPNDLLKLNSELNIEWKQAISSTVLGKVIVQPDQNF </p>
Research Area	Cancer
Source	Mammalian cell
Target Names	MET
Expression Region	25-932aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

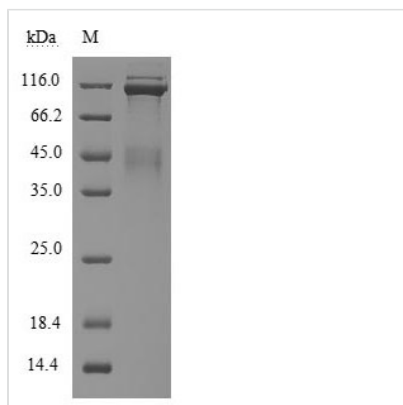


Tag Info C-terminal hFc1-tagged

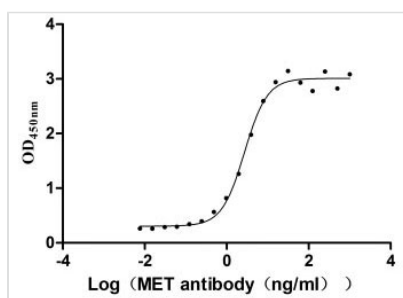
Mol. Weight 130.6 kDa

Protein Length Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
Measured by its binding ability in a functional ELISA. Immobilized MET at 2 µg/ml can bind Anti-MET recombinant antibody, the EC₅₀ is 2.379-3.094 ng/ml.

Description

The recombinant human MET is a high-purity protein with endotoxin levels below 1.0 EU/µg, as determined by the LAL method. Its purity is over 90% as measured by SDS-PAGE. It is expressed with the plasmid that contains the gene fragment encoding the 25-932aa of human MET and the C-terminal hFc-tag gene in mammalian cells. The recombinant MET protein's activity has been validated via functional ELISA, showing a binding EC₅₀ of 2.379-3.094 ng/ml with an anti-MET recombinant antibody.

The human HGFR, also called c-Met/MET, is a receptor tyrosine kinase that plays a critical role in various physiological processes, including cell growth, motility, and differentiation. Upon binding of HGF, c-Met undergoes dimerization, which activates its intrinsic tyrosine kinase activity, leading to autophosphorylation and the recruitment of downstream signaling molecules [1][2]. This activation cascade is essential for mediating various cellular responses, including DNA synthesis, cell migration, and tissue regeneration [3][4].

The HGF/c-Met signaling pathway is also important for pathological conditions, particularly in cancer progression and metastasis. Aberrant activation of the c-Met pathway has been implicated in several malignancies, contributing to tumor growth, invasion, and metastasis [5-7]. Additionally, mutations in the MET gene have been associated with various diseases, including nonsyndromic hearing loss, underscoring the receptor's diverse biological roles [8].


References:

- [1] C. Basilico, A. Arnesano, M. Galluzzo, P. Comoglio, & P. Michieli, A high-affinity hepatocyte growth factor-binding site in the immunoglobulin-like region of met, *Journal of Biological Chemistry*, vol. 283, no. 30, p. 21267-21277, 2008. <https://doi.org/10.1074/jbc.m800727200>
- [2] J. Rubin, R. Day, D. Breckenridge, N. Atabey, W. Taylor, S. Stahlet al., Dissociation of heparan sulfate and receptor binding domains of hepatocyte growth factor reveals that heparan sulfate-c-met interaction facilitates signaling, *Journal of Biological Chemistry*, vol. 276, no. 35, p. 32977-32983, 2001. <https://doi.org/10.1074/jbc.m105486200>
- [3] S. Paranjpe, W. Bowen, A. Bell, K. Nejak?Bowen, J. Luo, & G. Michalopoulos, Cell cycle effects resulting from inhibition of hepatocyte growth factor and its receptor c-met in regenerating rat livers by rna interference, *Hepatology*, vol. 45, no. 6, p. 1471-1477, 2007. <https://doi.org/10.1002/hep.21570>
- [4] T. Kato, Biological roles of hepatocyte growth factor?met signaling from genetically modified animals (review), *Biomedical Reports*, 2017. <https://doi.org/10.3892/br.2017.1001>
- [5] S. Aguirre, J. Heyen, W. Collette, W. Bobrowski, & E. Blasi, Cardiovascular effects in rats following exposure to a receptor tyrosine kinase inhibitor, *Toxicologic Pathology*, vol. 38, no. 3, p. 416-428, 2010. <https://doi.org/10.1177/0192623310364027>
- [6] T. Takayanagi, Y. Aoki, & K. Tanaka, Expression of constitutively active c-met receptor in human choriocarcinoma, *Gynecologic and Obstetric Investigation*, vol. 50, no. 3, p. 198-202, 2000. <https://doi.org/10.1159/000010310>
- [7] F. Shojaei, J. Lee, B. Simmons, A. Wong, C. Esparza, P. Plumlee et al., Hgf/c-met acts as an alternative angiogenic pathway in sunitinib-resistant tumors, *Cancer Research*, vol. 70, no. 24, p. 10090-10100, 2010. <https://doi.org/10.1158/0008-5472.can-10-0489>
- [8] G. Mujtaba, J. Schultz, A. Imtiaz, R. Morell, T. Friedman, & S. Naz, A mutation of met, encoding hepatocyte growth factor receptor, is associated with human deafness, *Journal of Medical Genetics*, vol. 52, no. 8, p. 548-552, 2015. <https://doi.org/10.1136/jmedgenet-2015-103023>

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.