Data Sheet (Cat.No.TMPY-05441)

TargetMol

HGFR/c-Met Protein, Human, Recombinant (hFc)

General Information

Synonyms:	HGFR;DFNB97;RCCP2;AUTS9;c-Met;MET proto-oncogene, receptor tyrosine kinase
Protein Construction:	Glu25-Thr932
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P08581-1
Molecular Weight:	The mature form of HGF R is a heterodimer which can be cleaved into a and ß chain. The protein has a predicted MW of 32.5 kDa (a chain) and 95.9 kDa (ß chain Fc chimera). Due to glycosylation, the protein migrates to 45-55 kDa and 100-120 kDa based on Bis-Tris PAGE result.

QC Testing

Biological Activity:	Immobilized Human HGF, His Tag at 2 μg/ml (100 μl/Well) on the plate. Dose response curve for Human HGF R, hFc Tag with the EC50 of 9.9 ng/ml determined by ELISA (QC Test). Immobilized Human HGF R, hFc Tag at 5 μg/ml (100 μl/Well) on the plate. Dose response curve for Biotinylated Anti-HGF R Antibody, hFc Tag with the EC50 of 4.2 ng/ml determined by ELISA. Loaded Human HGF R, hFc Tag on ProA-Biosensor can bind Human HGF, His Tag with an affinity constant of 4.32 nM as determined in BLI assay.
Purity:	> 95% as determined by Bis-Tris PAGE; > 90% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

c-Met, also called tyrosine-protein kinase Met or hepatocyte growth factor receptor (HGF R), is a protein that in humans is encoded by the MET gene. The protein possesses tyrosine kinase activity. The primary single chain precursor protein is post-translationally cleaved to produce the alpha and beta subunits, which are disulfide linked to form the mature receptor. Following activation by ligand, interacts with the PI3-kinase subunit PIK3R1, PLCG1, SRC, GRB2, STAT3 or the adapter GAB1. Recruitment of these downstream effectors by MET leads to the activation of several signaling cascades including the RAS-ERK, PI3 kinase-AKT, or PLCgamma-PKC. The RAS-ERK activation is associated with the morphogenetic effects while PI3K/AKT coordinates prosurvival effects. During embryonic development, MET signaling.

Reference

McGill GG,et al.(2006) c-Met expression is regulated by Mitf in the melanocyte lineage. J Biol Chem. 281(15): 10365-73.

Garcia S,et al.(2007) c-Met overexpression in inflammatory breast carcinomas: automated quantification on tissue microarrays. British journal of cancer. 96(2): 329-35.

Socoteanu MP,et al.(2008) c-Met targeted therapy of cholangiocarcinoma. World J Gastroenterol. 14(19): 2990-4.

Kong DS,et al.(2009) Prognostic significance of c-Met expression in glioblastomas. Cancer. 115(1): 140-8.

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