

Product Data Sheet

HGFR Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78490
Synonyms:	MET; oncogene MET; HGF R; HGF/SF receptor; AUTS9; cMET; Met (c-Met); RCCP2; SF receptor
Species:	Human
Source:	HEK293
Accession:	P08581 (E25-T932)
Gene ID:	4233
Molecular Weight:	45-60 kDa & 80-100 kDa

PROPERTIES	
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Biological Activity	 Immobilized Human HGF R, His Tag at 5 μg/mL (100 μl/Well) on the plate. Dose response curve for Anti-HGF R Antibody, hFc Tag with the EC₅₀ of ≤17.3 ng/mL determined by ELISA. Immobilized Human HGF R, His Tag at 1 μg/mL (100 μl/Well). Dose response curve for Human HGF, hFc Tag with the EC₅₀ of ≤27 ng/mL determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The HGFR protein, a receptor tyrosine kinase, functions as a signal transducer from the extracellular matrix by binding to hepatocyte growth factor/HGF ligand. It plays a pivotal role in regulating diverse physiological processes, including proliferation, scattering, morphogenesis, and cell survival. Upon ligand binding at the cell surface, HGFR undergoes autophosphorylation on its intracellular domain, creating docking sites for downstream signaling molecules. Upon activation by ligand, it interacts with the PI3-kinase subunit PIK3R1, PLCG1, SRC, GRB2, STAT3, or the adapter GAB1, leading to the activation of multiple signaling cascades, including RAS-ERK, PI3 kinase-AKT, and PLCgamma-PKC. RAS-ERK activation is associated with morphogenetic effects, while PI3K/AKT coordinates prosurvival effects. In embryonic development, HGFR signaling contributes to gastrulation, the development and migration of neuronal precursors, angiogenesis, and kidney formation. During skeletal muscle development, it is crucial for the migration of muscle progenitor cells and the proliferation of secondary myoblasts. In adults, it participates in wound healing, organ regeneration, tissue

remodeling, and promotes the differentiation and proliferation of hematopoietic cells. Additionally, in the context of microbial infection, HGFR acts as a receptor for Listeria monocytogenes internalin InlB, mediating the entry of the pathogen into cells.

Caution: Product has not been fully validated for medical applications. For research use only.

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