

HGFR Protein, Canine (HEK293, His)

Cat. No.:	HY-P72934
Synonyms:	Hepatocyte growth factor receptor; HGF receptor; SF receptor; MET
Species:	Canine
Source:	HEK293
Accession:	Q75ZY9 (E25-L935)
Gene ID:	403438
Molecular Weight:	Approximately 35-43 kDa & 80-100 kDa. The protein is a disulfide-linked heterodimer composed of proteolytically cleaved α (32 kDa) and β subunits (120 kDa).

PROPERTIES

AA Sequence

E C K E A L V K S E	M N V N M K Y Q L P	N F T A E T P I Q N	V V L H K H H I Y L
G A V N Y I Y V L N	D K D L Q K V A E Y	K T G P V L E H P D	C S P C Q D C S H K
A N L S G G V W E D	N I N M A L L V D T	Y Y D D Q L I S C G	S V H R G T C Q R H
I L P P S N I A D I	Q S E V H C M Y S S	Q A D E E P S Q C P	D C V V S A L G T K
V L I S E K D R F I	N F F V G N T I N S	S D H P D H S L H S	I S V R R L K E T Q
D G F K F L T D Q S	Y I D V L P E F R D	S Y P I K Y V H A F	E S N H F I Y F L T
V Q R E T L D A Q T	F H T R I I R F C S	V D S G L H S Y M E	M P L E C I L T E K
R R K R S T R E E V	F N I L Q A A Y V S	K P G A H L A K Q I	G A N L N D D I L Y
G V F A Q S K P D S	A E P M N R S A V C	A F P I K Y V N E F	F N K I V N K N N V
R C L Q H F Y G P N	H E H C F N R T L L	R N S S G C E A R N	D E Y R T E F T T A
L Q R V D L F M G Q	F N Q V L L T S I S	T F I K G D L T I A	N L G T S E G R F M
Q V V V S R S G L S	T P H V N F R L D S	H P V S P E A I V E	H P L N Q N G Y T L
V V T G K K I T R I	P L N G L G C E H F	Q S C S Q C L S A P	P F V Q C G W C H D
R C V H L E E C P T	G A W T Q E V C L P	A I Y E V F P T S A	P L E G G T V L T V
C G W D F G F R R N	N K F D L K K T K V	F L G N E S C T L T	L S E S T T N M L K
C T V G P A V N E H	F N I S I I I S N G	R G T A Q Y S T F S	Y V D P I I T S I S
P S Y G P K N G G T	L L T L T G K Y L N	S G N S R H I S M G	G K T C T L K S V S
D S I L E C Y T P A	Q A T A T E F P I K	L K I D L A N R E M	N S F S Y Q E D P I
V Y A I H P T K S F	I S G G S T I T A V	G K N L N S V S V L	R M V I D V H E T R
R N F T V A C Q H R	S N S E I I C C T T	P S L Q Q L N L Q L	P L K T K A F F M L
D G I H S K Y F D L	I Y V H N P V F K P	F E K P V M I S I G	N E N V L E I K G N
D I D P E A V K G E	V L K V G N K S C E	T I Y S D S K A V L	C K V P N D L L K L
N N E L N I E W K Q	A V S S T V L G K V	I V Q P D Q N F T G	L

Biological Activity

Immobilized Canine HGFR at 5 μ g/mL (100 μ L/well) can bind Human HGF. The ED₅₀ for this effect is 43.11 ng/mL.

Appearance

Lyophilized powder

Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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, serves as a critical transducer of signals from the extracellular matrix by binding to hepatocyte growth factor/HGF ligand. It plays a pivotal role in regulating various physiological processes, including proliferation, scattering, morphogenesis, and cell survival. Upon ligand binding at the cell surface, MET undergoes autophosphorylation on its intracellular domain, creating docking sites for downstream signaling molecules. Upon activation, HGFR interacts with PI3-kinase subunit PIK3R1, PLCG1, SRC, GRB2, STAT3, or the adapter GAB1, leading to the activation of multiple signaling cascades, such as 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, muscle and neuronal precursor development and migration, angiogenesis, and kidney formation. 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 InIB, facilitating the entry of the pathogen into cells.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA