RET Protein, Human (HEK293, His)

Cat. No.:	HY-P73679
Synonyms:	Proto-oncogene tyrosine-protein kinase receptor Ret; RET; CDHF12; CDHR16
Species:	Human
Source:	HEK293
Accession:	P07949 (L29-R635)
Gene ID:	5979
Molecular Weight:	110-120 kDa

PROPERTIES

AA Sequence

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

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/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 RET protein, a receptor tyrosine-protein kinase, plays a crucial role in diverse cellular processes such as cell proliferation, neuronal navigation, migration, and differentiation upon binding with glial cell-derived neurotrophic factor family ligands. It phosphorylates PTK2/FAK1 and regulates the delicate balance between cell death and survival, as well as positional information. Essential for the molecular coordination during intestine organogenesis, RET is involved in the development of the enteric nervous system, renal organogenesis, and promotes the formation of Peyer's patch-like structures in the gut-associated lymphoid tissue. Furthermore, RET modulates cell adhesion, mediated by caspase cleavage in sympathetic neurons, and facilitates cell migration in an integrin-dependent manner. Operating as a dependence receptor, it triggers apoptosis in the absence of the ligand GDNF in somatotrophs but promotes survival and downregulates growth hormone production in its presence. RET is a key mediator in various diseases, particularly neuroendocrine cancers characterized by aberrant integrins-regulated cell migration. Additionally, it mediates GDF15-induced cell signaling in the brainstem through interaction with GFRAL, resulting in the inhibition of food intake and activation of MAPK- and AKT-signaling pathways. Notably, isoform 1 in complex with GFRAL induces higher activation of the MAPK-signaling pathway compared to isoform 2 in the same complex.

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