Recombinant RET protein (His tag)

Catalog Number	544330
Synonyms	Cadherin family member 12; Proto-oncogene c-Ret
Species	Human
Expression System	E. coli
Accession	P07949
Molecular Weight	Predictes a molecular mass of 35.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	711-1010
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 711-1010 aa (P07949) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This recombinant protein product features a stable and soluble 300-amino acid fragment (residues 711-1010) of the human Proto-oncogene tyrosine-protein kinase receptor Ret (RET). This fragment is ideal for structural studies, biochemical assays, and functional investigations into RET's role in cellular signaling, proliferation, and differentiation, offering researchers a reliable tool for exploring kinase mechanisms and related pathways. The full-length RET protein is a receptor tyrosine kinase crucial for numerous cellular processes, including cell proliferation, neuronal navigation, migration, and differentiation. It is activated by glial cell line-derived neurotrophic factor (GDNF) family ligands (e.g., GDNF, NRTN, ARTN) in complex with coreceptors (e.g., GFRA1, GFRA3), leading to autophosphorylation and downstream signaling via MAPK and AKT pathways. RET also functions as a dependence receptor, promoting survival in the presence of ligands like GDNF but inducing apoptosis in their absence. It localizes primarily to the plasma membrane and endosomes, playing key roles in organogenesis, such as in the enteric nervous system and renal development, and is implicated in mechanisms like nociceptor survival and cell adhesion through caspase-mediated cleavage. Dysregulation of RET is linked to various diseases, highlighting its significance in biomedical research.