Recombinant Human RET Protein(His Tag)

Catalog Number: PDMH100184

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

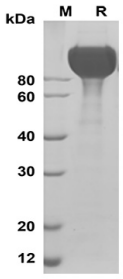
Description

Species	Human
Source	Mammalian-derived Human RET protein Leu29-Arg635, with an C-terminal His
Calculated MW	66.7 kDa
Observed MW	90-120 kDa
Accession	P07949
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human RET proteins, 2μg/lane of Recombinant Human RET proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 90-120 kDa

Background

RET proto-oncogene, also known as RET, is a cell-surface molecule that transduce signals for cell growth and differentiation. It contains 1 cadherin domain and 1 protein kinase domain. RET proto-oncogene belongs to the protein kinase superfamily, tyr protein kinase family. RET proto-oncogene is involved in numerous cellular mechanisms including cell proliferation, neuronal navigation, cell migration, and cell differentiation upon binding with glial cell derived neurotrophic factor family ligands. It phosphorylates PTK2/FAK1 and regulates both cell death/survival balance and positional information. RET is required for the molecular mechanisms orchestration during intestine organogenesis; involved in the development of enteric nervous system and renal organogenesis during embryonic life; promotes the formation of Peyer's patch-like structures; modulates cell adhesion via its cleavage; involved in the development of the neural crest. RET proto-oncogene is active in the absence of ligand, triggering apoptosis. RET acts as a dependence receptor; in the presence of the ligand GDNF in somatotrophs (within pituitary), promotes survival and downregulates growth hormone (GH) production, but triggers apoptosis in absence of GDNF. It also regulates nociceptor survival and size; triggers the differentiation of rapidly adapting (RA) mechanoreceptors; mediated several diseases such as neuroendocrine cancers. Defects in RET may cause colorectal cancer, hirschsprung disease type 1, medullary thyroid carcinoma, multiple neoplasia type 2B, susceptibility to pheochromocytoma, multiple neoplasia type 2A, thyroid papillary carcinoma and congenital central hypoventilation syndrome.