Recombinant PGFRA protein (His tag)

Catalog Number	537560
Synonyms	PDGF-R-alpha; PDGFR-alpha; Alpha platelet-derived growth factor receptor; Alpha-type platelet-derived growth factor receptor; CD140 antigen-like family member A; CD140a antigen; Platelet-derived growth factor alpha receptor; Platelet-derived growth factor receptor 2; PDGFR-2; CD antigen CD140a
Species	Human
Expression System	E. coli
Accession	P16234
Molecular Weight	Predictes a molecular mass of 23.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	790-980
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 790-980 aa (P16234) 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	Recombinant human Platelet-derived growth factor receptor alpha (PDGF-R-alpha) fragment (residues 790-980), a stable and soluble protein unit ideal for structural studies, biochemical assays, and investigating tyrosine kinase signaling pathways in cell proliferation, survival, and chemotaxis. Platelet-derived growth factor receptor alpha (PDGF-R-alpha) is a tyrosine-protein kinase that functions as a cell-surface receptor for PDGFA, PDGFB, and PDGFC ligands, playing essential roles in embryonic development, cell proliferation, survival, and chemotaxis. It regulates diverse processes including bone marrow mesenchymal stem cell differentiation, gastrointestinal mucosa development, wound healing, and platelet activation. Upon ligand binding, PDGF-R-alpha activates key signaling cascades involving PIK3R1, PLCG1, HRAS, MAPK1/ERK2, MAPK3/ERK1, and STAT family members, modulating cellular responses such as calcium mobilization and AKT1 pathway activation. The full-length protein is localized to the cell membrane as a single-pass type I membrane protein and is also found in cell projections like cilia and the Golgi apparatus, with its activity finely regulated by dephosphorylation and receptor internalization.