Recombinant PCD12 protein (His tag)

Catalog Number	541320
Synonyms	Vascular cadherin-2; Vascular endothelial cadherin-2; VE-cad-2; VE-cadherin-2
Species	Human
Expression System	E. coli
Accession	Q9NPG4
Molecular Weight	Predictes a molecular mass of 12.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	617-718
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 617-718 aa (Q9NPG4) 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 is a 102-amino acid fragment (residues 617-718) of human Protocadherin-12, also known as Vascular cadherin-2 or VE-cadherin-2. It represents a stable, soluble unit ideal for structural studies, biochemical assays, and investigating cell adhesion mechanisms in vascular biology research. Protocadherin-12 is a calcium-dependent cellular adhesion molecule that plays a critical role in cell-cell interactions at interendothelial junctions. It functions as a regulator of cell migration, likely through enhancing cell-cell adhesion, and promotes homotypic calcium-dependent aggregation and adhesion while clustering at intercellular junctions. Unlike classical cadherins, Protocadherin-12 shows weak association with the cytoskeleton and does not bind to catenins. The full-length protein is a single-pass type I membrane protein localized to the cell membrane and cell junctions, with a secreted form generated through ADAM10-mediated cleavage. These properties make Protocadherin-12 an important molecule for understanding vascular biology and endothelial cell interactions.