Recombinant PLVAP protein (His tag)

Catalog Number	543528
Synonyms	Fenestrated endothelial-linked structure protein; Plasmalemma vesicle protein 1; PV-1
Species	Human
Expression System	E. coli
Accession	Q9BX97
Molecular Weight	Predictes a molecular mass of 46.82 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	49-442
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 49-442 aa (Q9BX97) 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 Plasmalemma vesicle-associated protein (PLVAP) fragment (residues 49-442) is a high-purity, stable protein designed for structural and biochemical studies. This 394-amino acid fragment retains key functional characteristics, making it an ideal tool for investigating endothelial cell biology and vascular permeability mechanisms. Plasmalemma vesicle-associated protein (PLVAP) is an endothelial cell-specific membrane protein essential for forming diaphragms that bridge endothelial fenestrae, stomata of caveolae, and transendothelial channels. It plays a critical role in regulating microvascular permeability by controlling the passage of water and solutes through endothelial fenestrae, thereby balancing transcellular versus paracellular flow in various organs. The protein is also implicated in embryonic development. Localized to the cell membrane and caveolae as a single-pass type II membrane protein, PLVAP associates with fenestral and stomatal diaphragms in fenestrated endothelia and transendothelial channels, and shows perinuclear colocalization with CAV1. Its specific membrane organization makes it fundamental to vascular function and permeability regulation.