Recombinant PACS2 protein (His tag)

Catalog Number	540644
Synonyms	PACS-2; PACS1-like protein
Species	Human
Expression System	E. coli
Accession	Q86VP3
Molecular Weight	Predictes a molecular mass of 25.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	468-682
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 468-682 aa (Q86VP3) 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 PACS2 (468-682) is a high-purity protein fragment derived from Phosphofurin acidic cluster sorting protein 2 (PACS-2), a multifunctional sorting protein critical for endoplasmic reticulum-mitochondria communication and apoptosis regulation. This 215-amino acid fragment has been computationally designed for optimal stability and solubility, making it an ideal tool for structural studies, biochemical assays, and functional investigations into cellular trafficking and organelle dynamics. Phosphofurin acidic cluster sorting protein 2 (PACS-2) is a multifunctional sorting protein in humans that plays a central role in controlling communication between the endoplasmic reticulum (ER) and mitochondria, including maintaining ER-mitochondria apposition and ER homeostasis. It also mediates apoptosis by translocating BIB to mitochondria, triggering cytochrome c release and caspase-3 activation, ultimately leading to cell death. Additionally, PACS-2 is involved in ion channel trafficking by directing acidic cluster-containing ion channels to specific subcellular compartments. The protein localizes to both the endoplasmic reticulum and mitochondria, reflecting its dual roles in organelle communication and cellular stress response pathways.