# Recombinant PITM1 protein (His tag)

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| **Catalog Number** | 541706 |
| **Synonyms** | Drosophila retinal degeneration B homolog; Phosphatidylinositol transfer protein, membrane-associated 1; PITPnm 1; Pyk2 N-terminal domain-interacting receptor 2; NIR-2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O00562 |
| **Molecular Weight** | Predictes a molecular mass of 40.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band. |

## Product Information

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| **Sequence Region** | 824-1173 |
| **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 824-1173 aa (O00562) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human PITPNM1 Protein Fragment (aa 824-1173) is a high-quality, stable, and soluble protein product designed for structural and biochemical research. This fragment, derived from the Membrane-associated phosphatidylinositol transfer protein 1, retains key characteristics for studying protein function and interactions, making it ideal for applications in cell biology and molecular research. The full-length PITPNM1 protein, encoded by the PITPNM1 gene in Homo sapiens, catalyzes the transfer of phosphatidylinositol (PI) between membranes, with a binding affinity order of PI > phosphatidic acid > phosphatidylcholine. It regulates RHOA activity and cytoskeleton remodeling, is essential for normal cytokinesis completion, and maintains diacylglycerol levels in the Golgi apparatus. Additionally, PITPNM1 is critical for the structural integrity of the endoplasmic reticulum and Golgi apparatus, as well as for protein export from these organelles. It binds calcium ions and localizes to the cytoplasm, Golgi stack membrane, endoplasmic reticulum membrane, lipid droplets, cleavage furrow, and midbody, with dynamic redistribution during mitosis and cytokinesis. This fragment (aa 824-1173) was selected computationally to represent a stable, soluble unit, facilitating detailed analysis of the protein's properties without the complexities of the full-length form. |