Recombinant POPD1 protein (His tag)

Catalog Number	545475
Synonyms	Popeye protein 1
Species	Human
Expression System	E. coli
Accession	Q8NE79
Molecular Weight	Predictes a molecular mass of 19.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	114-266
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 114-266 aa (Q8NE79) 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 Popeye domain-containing protein 1 (POPDC1) fragment (aa 114-266) is a high-purity, stable protein designed for structural and functional studies. This soluble fragment retains key biochemical properties, making it ideal for investigating cell adhesion, tight junction regulation, and cardiac function mechanisms. Popeye domain-containing protein 1 (POPDC1) is a crucial cell adhesion molecule involved in maintaining epithelial cell integrity by regulating tight junction permeability. It facilitates VAMP3-mediated vesicular transport, modulates Rho-family GTPase activity via interaction with ARHGEF25/GEFT, and supports striated muscle regeneration. In cardiac tissue, POPDC1 regulates heart rate dynamics through cAMP-binding and enhances potassium channel KCNK2 surface expression. It localizes to lateral cell membranes, tight junctions, sarcolemma, and caveolae, playing a protective role in ischemia injury. The fragment (aa 114-266) represents a stable, soluble region optimized for biochemical and structural analyses.