Recombinant PLAK2 protein (His tag)

Catalog Number	548551
Synonyms	A-kinase anchor protein 2; AKAP-2; AKAP-KL; Paralemmin A kinase anchor protein; Paralemmin-2; Protein kinase A-anchoring protein 2; PRKA2
Species	Human
Expression System	E. coli
Accession	Q9Y2D5
Molecular Weight	Predictes a molecular mass of 16.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	1-125
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-125 aa (Q9Y2D5) 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	Introducing the recombinant PALM2-AKAP2 fusion protein fragment (residues 1-125), a stable and soluble unit derived from the human A-kinase anchor protein 2. This fragment is engineered for structural and biochemical studies, enabling researchers to explore its role in protein kinase A regulation and cytoskeletal dynamics with high reliability. The full-length PALM2-AKAP2 protein, also known as A-kinase anchor protein 2, binds to the regulatory subunit (RII) of protein kinase A (PKA) and is implicated in establishing polarity in signaling systems. It integrates PKA-RII isoforms with downstream effectors to capture, amplify, and focus diffuse, trans-cellular signals carried by cAMP. Additionally, it binds to and modulates the structure of the actin cytoskeleton. Subcellularly, it localizes to the apical cell membrane via a GPI-like anchor on the cytoplasmic side, accumulating near the inner, apical surface of highly polarized epithelium in nephron tubules, underscoring its importance in cellular organization and signal transduction pathways.