Recombinant ANK3 protein (His tag)

Catalog Number	547246
Synonyms	ANK-3; Ankyrin-G
Species	Human
Expression System	E. coli
Accession	Q12955
Molecular Weight	Predictes a molecular mass of 48.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	985-1400
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 985-1400 aa (Q12955) 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 Ankyrin-3 (ANK-3) Fragment (residues 985-1400) is a high-purity protein designed for studying the ZU5 2 domain. This fragment serves as an essential tool for investigating the membrane-cytoskeleton linking functions of Ankyrin-G, particularly in neuronal and muscular contexts. Ankyrin-3 (Ankyrin-G) is a critical membrane-cytoskeleton linker protein that plays key roles in maintaining cellular structure and function. It participates in the localization of ion channels and cell adhesion molecules at specialized neuronal regions including nodes of Ranvier and axonal initial segments. In skeletal muscle, it facilitates costamere localization of dystrophin complex components, while in renal systems it regulates potassium channel activity in response to magnesium levels. The protein localizes to multiple cellular compartments including the cytoplasm, cytoskeleton, cell membrane (particularly sarcolemma and T-tubules), axons, postsynaptic membranes, and lysosomes. Isoform 5 specifically associates with the Golgi apparatus. The 985-1400 fragment containing the ZU5 2 domain enables focused investigation of these specific functional aspects without interference from other protein regions.