Recombinant AT2B2 protein (His tag)

Catalog Number	537947
Synonyms	PMCA2; Plasma membrane calcium ATPase isoform 2; Plasma membrane calcium pump isoform 2
Species	Human
Expression System	E. coli
Accession	Q01814
Molecular Weight	Predictes a molecular mass of 47.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	462-875
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 462-875 aa (Q01814) 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 Plasma Membrane Calcium-Transporting ATPase 2 (PMCA2) Fragment (residues 462-875) is a high-purity protein product designed for structural and biochemical studies. This 414-amino acid fragment represents a stable and soluble region of PMCA2, an essential calcium pump critical for neuronal signaling, hearing, and balance. Ideal for researchers investigating calcium transport mechanisms and ATPase function. Plasma Membrane Calcium-Transporting ATPase 2 (PMCA2), encoded by the ATP2B2 gene, is an ATP-driven calcium pump that maintains basal intracellular calcium levels in specialized cells. It plays crucial roles in cerebellar circuits, vestibular systems, and cochlear hair cells by rapidly clearing cytosolic calcium ions to the extracellular space, contributing to neuronal plasticity, motor learning, hearing, and balance. In non-excitable cells, PMCA2 regulates calcium signaling by dissipating transients from store-operated channels, and in mammary glands, it facilitates calcium enrichment in milk. The protein localizes to the plasma membrane and synapses, with various isoforms showing specific apical or basolateral membrane distributions in different cellular contexts.