Recombinant B3A3 protein (His tag)

Catalog Number	544640
Synonyms	AE 3; Anion exchanger 3; CAE3/BAE3; Cardiac/brain band 3-like protein; Neuronal band 3-like protein; Solute carrier family 4 member 3
Species	Human
Expression System	E. coli
Accession	P48751
Molecular Weight	Predictes a molecular mass of 16.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	509-639
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 509-639 aa (P48751) 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	This product features a recombinant fragment of the Human Anion Exchange Protein 3 (AE3), also known as Solute Carrier Family 4 Member 3 (SLC4A3). The fragment, spanning residues 509-639, is a stable and soluble unit ideal for investigating the protein's role in sodium-independent chloride-bicarbonate exchange and its implications in pH regulation and cardiac electrophysiology. Anion Exchange Protein 3 (AE3) is a multi-pass membrane protein located in the cell membrane, where it functions as a sodium-independent anion exchanger. It facilitates the electroneutral exchange of chloride for bicarbonate ions, contributing to intracellular pH homeostasis and potentially modulating cardiac action potentials. This protein, encoded by the SLC4A3 gene, is significant for understanding cellular ion balance and its impact on physiological processes, with isoforms such as CAE3 specifically expressed in cardiac and neuronal tissues.