Recombinant FRMD7 protein (His tag)

Catalog Number	542969
Species	Human
Expression System	E. coli
Accession	Q6ZUT3
Molecular Weight	Predictes a molecular mass of 39.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-325
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-325 aa (Q6ZUT3) 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 FRMD7 (FERM domain-containing protein 7) fragment (amino acids 1-325) is a high-purity protein designed for studying neurite development and RAC1 GTPase activation. This fragment fully encompasses the functional FERM domain, making it an ideal tool for domain-specific functional assays and research on neuronal differentiation and eye movement control mechanisms. The full-length FRMD7 protein plays a critical role in neurite development, potentially through activation of the GTPase RAC1, and is essential for proper control of eye movement and gaze stability. Cellular localization studies show that FRMD7 is predominantly found in neuron projections and growth cones, specifically localizing to actin-rich regions of the cell body and primary neurite processes in differentiated neurons, while being largely absent from secondary extensions. This subcellular distribution pattern underscores its importance in neuronal development and cytoskeletal organization at growth cone regions, providing crucial insights into its function in neural connectivity and ocular motor control systems.