Recombinant SHRM3 protein (His tag)

Catalog Number	545546
Synonyms	Shroom-related protein; hShrmL
Species	Human
Expression System	E. coli
Accession	Q8TF72
Molecular Weight	Predictes a molecular mass of 13.67 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	1-110
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 1-110 aa (Q8TF72) 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 Protein Shroom3 (hShrmL) Fragment (1-110) is a high-purity protein designed for studying the PDZ domain's role in cell shape regulation. This fragment offers a targeted tool for investigating apical constriction and cytoskeletal organization in epithelial cells. Protein Shroom3 (SHROOM3) is a key regulator of cell shape changes during neural tube closure in humans. It induces apical constriction in epithelial cells by promoting apical accumulation of F-actin and myosin II, and likely bundles stress fibers. Additionally, it facilitates apicobasal cell elongation by redistributing gamma-tubulin and assembling robust microtubule arrays. The protein localizes to adherens junctions, the cytoskeleton, and the apical cell membrane as a peripheral membrane protein, where it colocalizes with F-actin in stress fibers and junctions, underscoring its critical role in cellular architecture and developmental processes.