Recombinant MARE3 protein (His tag)

Catalog Number	548529
Synonyms	EB1 protein family member 3; EBF3; End-binding protein 3; EB3; RP3
Species	Human
Expression System	E. coli
Accession	Q9UPY8
Molecular Weight	Predictes a molecular mass of 17.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1-134
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 1-134 aa (Q9UPY8) 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 MAPRE3/EB3 Fragment (1-134) is a high-purity protein fragment encompassing the essential Calponin-homology (CH) domain of the microtubule-associated protein EB3. This fragment serves as an ideal tool for researchers studying microtubule dynamics, plus-end tracking mechanisms, and cytoskeletal organization in cellular processes. Microtubule-associated protein RP/EB family member 3 (EB3) is a crucial plus-end tracking protein (+TIP) that binds to the growing ends of microtubules and regulates microtubule cytoskeleton dynamics. The full-length protein promotes microtubule growth and is involved in spindle function by stabilizing microtubules and anchoring them at centrosomes. EB3 also acts as a regulator of minus-end microtubule organization through interactions with AKAP9-PDE4DIP complexes, facilitating the recruitment of CAMSAP2 to the Golgi apparatus for tethering non-centrosomal minus-end microtubules. This protein is localized to the cytoplasm and cytoskeleton, specifically associated with the microtubule network where it concentrates at the plus ends of microtubules. The fragment provided (amino acids 1-134) contains the complete Calponin-homology domain (14-116), which is essential for the protein's microtubule-binding capabilities and regulatory functions.