Recombinant CAMP1 protein (His tag)

Catalog Number	542841
Species	Human
Expression System	E. coli
Accession	Q5T5Y3
Molecular Weight	Predictes a molecular mass of 40.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1-342
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 1-342 aa (Q5T5Y3) 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 Calmodulin-regulated Spectrin-associated Protein 1 (CAMSAP1) Fragment (aa 1-342) is a high-purity protein designed for studying microtubule minus-end dynamics and organization. This fragment includes the essential Calponin-homology (CH) domain, making it an ideal tool for investigating domain-specific interactions and functions in cytoskeletal regulation. Calmodulin-regulated Spectrin-associated Protein 1 (CAMSAP1) is a key microtubule-organizing protein in humans that specifically binds to the minus-ends of non-centrosomal microtubules, stabilizing them and regulating their dynamics and organization. Unlike its homologs CAMSAP2 and CAMSAP3, CAMSAP1 acts as a minus-end tracking protein (-TIP) by binding at the growing tips of microtubule minus-ends, allowing tubulin incorporation without significantly affecting polymerization rates, and then dissociating. It protects microtubule minus-ends from depolymerization and, through interactions with spectrin, may play a role in neurite outgrowth. CAMSAP1 localizes to the cytoplasm and cytoskeleton, associating specifically with microtubule minus-ends without forming extended decorated stretches, highlighting its unique role in microtubule minus-end regulation.