Recombinant HOOK3 protein (His tag)

Catalog Number	547639
Synonyms	h-hook3; hHK3
Species	Human
Expression System	E. coli
Accession	Q86VS8
Molecular Weight	Predictes a molecular mass of 51.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 61 kDa band.

Product Information

Sequence Region	1-428
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 1-428 aa (Q86VS8) 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 Hook homolog 3 (h-hook3) Fragment (aa 1-428) is a high-purity, functional protein designed for studying cytoskeletal transport and vesicle trafficking. This fragment encompasses the critical Calponin-homology (CH) domain, making it an ideal tool for investigating dynein motor complex interactions and processivity mechanisms in cellular dynamics. Protein Hook homolog 3 (HOOK3) is an adapter protein in Homo sapiens that links the dynein motor complex to various cargos, converting dynein into a highly processive motor when combined with dynactin. It enhances microtubule-based transport by recruiting multiple dyneins, increasing force and speed, and is a component of the FTS/Hook/FHIP complex, which promotes vesicle trafficking and Golgi complex architecture. Located in the cytoplasm, cytoskeleton, and Golgi apparatus, HOOK3 also plays a role in endocytosed receptor clearance and may be targeted by pathogens like Salmonella typhimurium, altering cellular trafficking. The provided fragment (aa 1-428) includes the CH domain, enabling focused research on these specific functional aspects without interference from other regions.