Recombinant SSH1 protein (His tag)

Catalog Number	547844
Synonyms	SSH-like protein 1; SSH-1L; hSSH-1L
Species	Human
Expression System	E. coli
Accession	Q8WYL5
Molecular Weight	Predictes a molecular mass of 45.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	73-453
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 73-453 aa (Q8WYL5) 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 Phosphatase Slingshot Homolog 1 (SSH1) Fragment (residues 73-453) is a high-purity protein designed for studying actin filament dynamics. This fragment includes the complete DEK-C and Tyrosine-protein phosphatase domains, making it an ideal tool for investigating cofilin activation and actin cytoskeleton regulation in cellular processes. Protein phosphatase Slingshot homolog 1 (SSH1) is a key regulator of actin filament dynamics in human cells. It functions by dephosphorylating and activating cofilin, an actin-binding protein that promotes actin filament disassembly. SSH1 also potentially inactivates LIMK1, which phosphorylates cofilin, creating a balanced regulatory system for actin remodeling. The protein localizes to the cytoplasm, cytoskeleton, and specific cellular structures including lamellipodia, cleavage furrows, and midbodies, suggesting its importance in cell locomotion and cytokinesis. This strategic localization enables precise spatial control of actin dynamics during critical cellular processes.