Recombinant SPIR protein (His tag)

Catalog Number	532317
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9U1K1
Gene ID	45931
Molecular Weight	Predictes a molecular mass of 15.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	220-333
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 220-333 aa (Q9U1K1) 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 Protein Spire Fragment (residues 220-333) is a highly stable and soluble fragment derived from the Drosophila melanogaster actin nucleation factor Protein spire. This 114-amino acid fragment has been computationally optimized for structural and biochemical studies, providing researchers with a reliable tool to investigate actin cytoskeleton dynamics and intracellular transport mechanisms. Full-length Protein spire functions as a key actin nucleation factor that remains associated with the pointed end of actin filaments and promotes dissociation of capu from barbed ends. It plays a critical role in intracellular vesicle transport along actin fibers, linking actin cytoskeleton dynamics with intracellular transport processes. The protein is essential for proper localization of determinants during oocyte development and connects Rho family signaling and Jnk function to the actin cytoskeleton. Subcellular localization studies show Protein spire is found in the cytoplasm, cytoskeleton, perinuclear region, and at cell and cytoplasmic vesicle membranes as a peripheral membrane protein on the cytoplasmic side, appearing in punctate spots in perinuclear regions and cytoplasm. This fragment represents a stable, soluble unit ideal for mechanistic studies of these important cellular functions.