Recombinant MSD1 protein (His tag)

Catalog Number	534041
Synonyms	Mitotic spindle density protein 1
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9W0G7
Gene ID	38155
Molecular Weight	Predictes a molecular mass of 17.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-138
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 1-138 aa (Q9W0G7) 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 Drosophila melanogaster Augmin complex subunit msd1 (Mitotic spindle density protein 1) fragment (residues 1-138). This high-quality protein fragment represents a stable, soluble domain ideal for investigating microtubule nucleation and mitotic spindle assembly mechanisms in biochemical and structural studies. The full-length Augmin complex subunit msd1 plays a critical role in centrosome-independent generation of spindle microtubules during mitotic spindle assembly. As part of the augmin complex, it facilitates the localization of gamma-tubulin to spindle microtubules, enabling microtubule nucleation from within the mitotic spindle. Additionally, msd1 is required for proper localization of Grip71 to both centrosomes and the mitotic spindle. The protein localizes to the cytoplasm, specifically associated with the cytoskeleton and spindle apparatus, underscoring its direct involvement in mitotic processes.