Recombinant FRU protein (His tag)

Catalog Number	532260
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q8IN81
Gene ID	42226
Molecular Weight	Predictes a molecular mass of 16.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	82-216
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 82-216 aa (Q8IN81) 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 Sex determination protein fruitless (fru) fragment (residues 82-216), encompassing the complete BTB domain. This high-purity protein is an essential tool for investigating the structural and functional roles of the BTB domain in transcriptional regulation, neural development, and sex-specific behaviors. The full-length Sex determination protein fruitless functions as a transcriptional regulator within the nucleus and is a critical component of the somatic sex determination hierarchy in Drosophila melanogaster. It undergoes sex-specific splicing regulated by transformer (tra) and transformer-2 (tra-2) genes, which determines male or female developmental pathways. This protein is vital for male and female viability, controls development of male-specific abdominal muscles, and plays a central role in male courtship behavior and sexual orientation. Additionally, it enhances male-specific expression of takeout in brain-associated fat body, highlighting its importance in neural and behavioral regulation.