Recombinant ROUGH protein (His tag)

Catalog Number	532019
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P10181
Gene ID	43234
Molecular Weight	Predictes a molecular mass of 13.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	174-266
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 174-266 aa (P10181) 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 Homeobox protein rough (ro) fragment (residues 174-266) from Drosophila melanogaster, a 93-amino acid protein unit ideal for studying photoreceptor cell identity and eye development mechanisms. This stable, soluble fragment is optimized for structural biology and biochemical applications. Homeobox protein rough is a nuclear transcription factor essential for establishing photoreceptor cell identity in the developing Drosophila eye imaginal disk. It specifically determines the unique identities of R2 and R5 photoreceptors and is critical for proper ommatidial assembly. The protein's function is regulated through repression in R8 photoreceptors by senseless, representing a fundamental mechanism in retinal cell fate determination. As a nuclear-localized protein, it functions in retinal development through gene regulatory mechanisms.