Recombinant BCD protein (His tag)

Catalog Number	532580
Synonyms	PRD-4
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P09081
Gene ID	40830
Molecular Weight	Predictes a molecular mass of 13.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	56-158
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 56-158 aa (P09081) 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 Homeotic protein bicoid (PRD-4) fragment (amino acids 56-158) from Drosophila melanogaster, representing a stable and soluble unit ideal for structural studies and biochemical characterization of this crucial developmental transcription factor. Homeotic protein bicoid (PRD-4) is a segment polarity transcription factor that provides essential positional cues for the development of head and thoracic segments in Drosophila melanogaster. During embryogenesis, it forms a protein concentration gradient that patterns the anterior-posterior axis and promotes expression of anterior gap genes including hunchback, ocelliless, and buttonhead. The protein binds to regulatory DNA sequences containing a 5'-TAATCC-3' motif and also exhibits RNA-binding capability. Bicoid interacts with Bin1 to repress transcription of target genes in the anterior embryonic tip through a process known as retraction. This nuclear-localized protein plays a fundamental role in embryonic patterning and developmental regulation.