Recombinant PHO protein (His tag)

Catalog Number	532829
Synonyms	Protein pleiohomeotic; Transcription factor YY1 homolog
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q8ST83
Gene ID	43819
Molecular Weight	Predictes a molecular mass of 14.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	357-470
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 357-470 aa (Q8ST83) 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	This product is a recombinant fragment of the Polycomb protein PHO (Protein pleiohomeotic), also known as Transcription factor YY1 homolog, from Drosophila melanogaster. The fragment corresponds to amino acids 357-470, representing a stable and soluble unit ideal for structural studies and biochemical assays investigating Polycomb group protein function. The full-length Polycomb protein PHO is a Polycomb group (PcG) protein that binds specifically to the DNA sequence 5'-CNGCCATNNNNG-3' in regulatory regions of numerous genes. PcG proteins form multiprotein complexes essential for maintaining the transcriptionally repressive state of homeotic genes during development, primarily through histone methylation that heritably alters chromatin expressibility. PHO is necessary, though not sufficient, for recruiting functional PcG repressive complexes, including the Esc/E(z) complex, to DNA, and it may also serve as a core component of the chromatin remodeling Ino80 complex involved in transcriptional regulation, DNA replication, and repair. The protein is localized in the nucleus, underscoring its direct role in chromatin-associated processes.