Recombinant ESC protein (His tag)

Catalog Number	532213
Synonyms	Protein extra sex combs
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q24338
Gene ID	34595
Molecular Weight	Predictes a molecular mass of 49.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	1-425
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-425 aa (Q24338) 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 Polycomb protein esc (Protein extra sex combs) fragment (amino acids 1-425) from Drosophila melanogaster. This high-quality recombinant protein represents a stable, soluble domain ideal for investigating Polycomb-mediated transcriptional repression mechanisms, histone methylation studies, and epigenetic research applications. Polycomb protein esc is a crucial Polycomb group (PcG) protein that establishes transcriptional repression of homeotic genes during early embryogenesis in Drosophila melanogaster. As a component of the Esc/E(z) complex, it catalyzes methylation of histone H3 at Lys-9 and Lys-27 residues, creating a repressive chromatin state that silences target genes. This repression requires subsequent recruitment of the PRC1 complex for full functionality. The protein localizes to the nucleus, where it executes its essential role in developmental gene regulation. The provided recombinant fragment (1-425) encompasses key functional regions, enabling detailed biochemical and structural analysis of this fundamental epigenetic regulator.