Recombinant SET17 protein (His tag)

Catalog Number	533031
Synonyms	SET domain-containing protein 17
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	A0A163UT06
Gene ID	174425
Molecular Weight	Predictes a molecular mass of 26.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	35-246
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 35-246 aa (A0A163UT06) 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 Histone-lysine N-methyltransferase set-17 (SET-17) fragment (residues 35-246) from Caenorhabditis elegans, encompassing the complete SET domain. This high-purity protein is ideal for in vitro studies of histone methylation mechanisms, specifically targeting H3K4 mono- and di-methylation, and serves as a valuable tool for epigenetic research. Histone-lysine N-methyltransferase set-17 (SET-17) is a nuclear enzyme that catalyzes mono- and di-methylation of histone H3 at lysine 4 (H3K4me1/me2), but does not perform trimethylation. It plays a critical role in spermatid development and fertility by positively regulating transcription of spermatocyte-specific genes in primary spermatocytes. SET-17, in conjunction with spr-5, is essential for maintaining transgenerational fertility. The protein localizes to specific nuclear foci in spermatocytes, which exhibit slow diffusion and liquid-like properties, and these foci co-localize with transcription start sites of major sperm proteins, highlighting its importance in epigenetic regulation and germline development.