Recombinant SET1 protein (His tag)

Catalog Number	531642
Synonyms	SET domain-containing protein 2
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q18221
Gene ID	175662
Molecular Weight	Predictes a molecular mass of 26.88 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	1293-1507
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 1293-1507 aa (Q18221) 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-2 fragment (residues 1293-1507) from Caenorhabditis elegans, encompassing the complete SET and Post-SET domains. This high-purity fragment serves as an essential tool for investigating histone methylation mechanisms, epigenetic regulation, and domain-specific functions in chromatin biology. Histone-lysine N-methyltransferase set-2 (SET-2) is the catalytic component of the COMPASS complex that specifically mono-, di-, and trimethylates histone H3 at lysine 4 (H3K4me1/2/3), establishing epigenetic marks for transcriptional activation. Located in the nucleus, SET-2 plays crucial roles in germline development, fertility maintenance, and lifespan regulation through epigenetic inheritance mechanisms. It functions in RNA interference pathways, antagonizes HP1 protein activity in somatic development, and cooperates with other epigenetic regulators during cell transdifferentiation. The protein's activity is modulated through RNA binding and recognition of ubiquitinated H2B, making it a central player in chromatin-mediated processes across multiple biological contexts.