Recombinant DMAP1 protein (His tag)

Catalog Number	543691
Synonyms	DNMAP1; DNMT1-associated protein 1
Species	Human
Expression System	E. coli
Accession	Q9NPF5
Molecular Weight	Predictes a molecular mass of 43.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	49-401
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 49-401 aa (Q9NPF5) 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	Introducing the recombinant Human DNA methyltransferase 1-associated protein 1 (DNMAP1) fragment (amino acids 49-401), a high-purity protein designed for investigating chromatin remodeling and transcriptional regulation. This fragment fully encompasses the SANT functional domain, making it an ideal tool for targeted studies of DNMAP1's role in histone modification, DNA replication-linked processes, and epigenetic control mechanisms. DNA methyltransferase 1-associated protein 1 (DNMAP1) is a multifunctional nuclear protein involved in both transcriptional repression and activation. It interacts with histone deacetylase 2 (HDAC2) to facilitate histone deacetylation in heterochromatin following DNA replication. DNMAP1 can repress transcription through both HDAC-dependent and independent mechanisms and specifically enhances DAXX-mediated repression of glucocorticoid receptor-dependent transcription. As a component of the NuA4 histone acetyltransferase complex, DNMAP1 contributes to transcriptional activation through acetylation of nucleosomal histones H4 and H2A, which alters nucleosome-DNA interactions and promotes recruitment of transcriptional activators. This complex is crucial for regulating programs associated with oncogene-mediated growth, tumor suppression, apoptosis, and DNA repair. DNMAP1 is primarily localized to the nucleus, where it targets replication foci throughout S phase in association with DNMT1, and also shows cytoplasmic presence. It additionally participates in nuclear localization of URI1 and enhances its transcriptional corepressor activity.