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DNA Methyltransferase 3L (160-387 aa), Human recombinant protein

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Catalog # PBV11241r

Specification

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - Product info

Primary Accession	Q9UJW3
Calculated MW	**53.2 kDa (160-387 aa + NT GST Tag) KDa**

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - Additional Info

Gene ID	**29947**
Gene Symbol	**DNMT3L**
Other Names	
DNMT3-Like Protein; DNMT3L	
Gene Source	**Human**
Source	**E. coli**
Assay&Purity	**SDS-PAGE; ≥95%**
Assay2&Purity2	**HPLC;**
Recombinant	**Yes**
Target/Specificity	
DNMT3L	

Format
Liquid

Storage
-80°C; 50 mM Tris, pH 8.0, containing 150 mM sodium chloride and 20% glycerol.

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - Images

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - Background

The DNA methyltransferase 3 (DNMT3) family of DNMT proteins perform intial methylation of cytosines to form 5-methylcytosine at CpG (cytosine-phosphate-guanine) sites on the DNA. Once

methylation is established on DNA, DNMT1 protein is responsible for maintaining the CpG methylation pattern during chromosome replication. The DNMT3 family includes the two active members, DNMT3a and DNMT3b, and the regulatory factor DNMT3-like protein (DNMT3L). DNMT3L contains a cysteine-rich, DNMT3/ATRX homology or ATRX-DNMT3-DNMT3L (ADD) domain; however it lacks the proline-tryptophan-tryptophan-proline (PWWP) domain, required for non-specific DNA binding. The ADD domain of DNMT3L is responsible for specifically binding to unmethylated histone H3 lysine 4 (H3K4me0). DNMT3L also lacks the conserved residues in the C-terminal DNA MTase domain of DNMT3a and 3b that are required for activity. However, DNMT3L is required to stimulate the DNA methylation activity of DNMT3a and 3b through interactions with the catalytic domain of DNMT3a and 3b.

DNA Methyltransferase 3L (160-387 aa), Human recombinant protein - References

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Hattori M.,et al.Nature 405:311-319(2000).
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Ooi S.K.,et al.Nature 448:714-717(2007).
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