# Recombinant human DNA (cytosine-5)-methyltransferase 3A

Catalog No: #AP71640

Package Size: #AP71640-1 20ug #AP71640-2 100ug #AP71640-3 1mg

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## Description

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| Product Name | Recombinant human DNA (cytosine-5)-methyltransferase 3A |
| Brief Description | Recombinant Protein |
| Host Species | E.coli |
| Purification | Greater than 90% as determined by SDS-PAGE. |
| Immunogen Description | Expression Region:680-902aaSequence Info:Partial |
| Other Names | DNA methyltransferase HsaIIIA ;DNA MTase HsaIIIA ;M.HsaIIIA |
| Accession No. | Q9Y6K1 |
| Uniprot | Q9Y6K1 |
| GeneID | 1788; |
| Calculated MW | 29.9 kDa |
| Tag Info | N-terminal 6xHis-tagged |
| Target Sequence | KIMYVGDVRSVTQKHIQEWGPFDLVIGGSPCNDLSIVNPARKGLYEGTGRLFFEFYRLLHDARPKEGDDRPFF WLFENVVAMGVSDKRDISRFLESNPVMIDAKEVSAAHRARYFWGNLPGMNRPLASTVNDKLELQECLEHGRI AKFSKVRTITTRSNSIKQGKDQHFPVFMNEKEDILWCTEMERVFGFPVHYTDVSNMSRLARQRLLGRSWSVP VIRHLF |
| Formulation | Tris-based buffer50% glycerol |
| Storage | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |

## Background

Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. It modifies DNA in a non-processive manner and also methylates non-CpG sites. May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1. Plays a role in paternal and maternal imprinting. Required for methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZBTB18. Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites. Can actively repress transcription through the recruitment of HDAC activity.

## References

Cloning, expression and chromosome locations of the human DNMT3 gene family.Xie S., Wang Z., Okano M., Nogami M., Li Y., He W.-W., Okumura K., Li E.Gene 236:87-95(1999)Research Topic:Epigenetics and Nuclear Signaling

Note: This product is for in vitro research use only