

Recombinant DNMT1 / DNA Methyltransferase 1 Antibody

Rabbit Monoclonal Antibody [Clone DNMT1/3906R]

| Catalog No | Format | Size |
|-----------------|--|--------|
| 1786-RBM3-P0 | Purified Ab with BSA and Azide at 200ug/ml | 20 ug |
| 1786-RBM3-P1 | Purified Ab with BSA and Azide at 200ug/ml | 100 ug |
| 1786-RBM3-P1ABX | Purified Ab WITHOUT BSA or Azide at 1.0mg/ml | 100 ug |

| Applications | Tested Dillution | Note |
|----------------------------|------------------|---|
| Immunohistochemistry (IHC) | 1-2ug/ml | 30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes |

Product Details

| | |
|-------------------------------|--|
| Clone | DNMT1/3906R |
| Immunogen | Recombinant fragment (around aa767-912) of the human DNMT1 protein (exact sequence is proprietary) |
| Host | Rabbit |
| Clonality | Monoclonal |
| Isotype / Light Chain | IgG / Kappa |
| Mol. Weight of Antigen | 183.16kDa |
| Cellular Localization | Nucleus |
| Species Reactivity | Human |
| Positive Control | Ubiquitous |

*Optimal dilution for a specific application should be determined.

Product Images for Recombinant DNMT1 / DNA Methyltransferase 1 Antibody

Specificity & Comments

Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with DNMT3B and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9. Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed:24623306). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). Promotes tumor growth (PubMed:24623306).

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

Supplied As

200ug/ml of Ab produced in a mammalian-based expression system. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.