

DNMT3a

(DNA (cytosine-5)-methyltransferase 3a)

CATALOG NO.: DMT-21-511

LOT NO.: 3592a

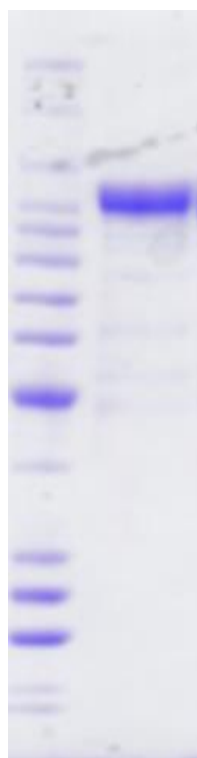
DESCRIPTION: Human recombinant DNMT3a (residues 214-912 (C-term.); Genbank Accession # NM_175629; MW = 107 kDa) expressed in Sf9 insect cells with an N-terminal GST-tag and C-terminal StrepII tag. DNA (cytosine-5)-methyltransferase 3a (DNMT3a) is required for *de novo* DNA methylation and methylates at both CpG and non-CpG sites.

PURITY: >80% by SDS-PAGE.

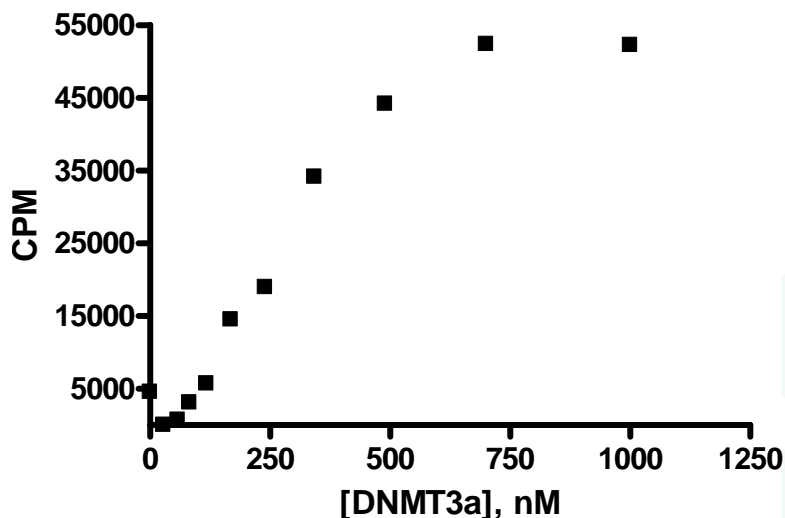
ASSAY CONDITIONS: RBC's DNMT3a (214-912) displays DNA methyltransferase activity at concentrations of 60 nM and above, 120 min. reactions, 30°C, as TCA-precipitated counts in a scintillation/filter plate assay (Multiscreen FB, TopCount)) (see Figure below). Reaction conditions are: 50mM Tris, pH 8, 5mM EDTA, 10% glycerol, 10mM BME, 0.05mM PMSF with 1.5 μM [³H]-SAM and 10 μg/mL Lambda DNA as substrate.

SUPPLIED AS: 1.62 μg/μl total protein in 50 mM Tris-HCl pH 8.0, 150 mM NaCl, 10% glycerol, 3 mM DTT, 0.05% Tween 20 as determined by OD₂₈₀.

STORAGE: -70°C. Thaw quickly and store on ice before use. The remaining, unused, undiluted enzyme should be refrozen quickly by, for example, snap freezing in a dry/ice ethanol bath or liquid nitrogen. Freezing and storage of diluted enzyme is not recommended.



Coomassie blue stained (4-12% acrylamide) SDS-PAGE of 4 μg of RBC DNMT3a (214-912). MWs of markers at left are, from top (kDa): 220, 160, 120, 100, 90, 80, 70, 60, 50, 40, 30, 25, 20, 15 & 10.



Enzyme Titration of DNMT3a (214-912): Methylation of Lambda DNA. Assays were performed with a scintillation/filter plate assay. Incubations were 120 min., 30°C at the indicated enzyme concentrations with 10 μg/mL Lambda DNA, 1.5 μM [³H]-SAM, under the assay conditions described above.

This product is not intended for therapeutic or diagnostic use in animals or in humans.

Reaction Biology

1 Great Valley Parkway, Malvern PA, USA 19355
 requests@reactionbiology.com www.reactionbiology.com