

10-7003: Monoclonal Antibody to DNMT3a (Clone: ABM13G4)

Clonality :	Monoclonal
Clone Name :	ABM13G4
Application :	FACS,WB
Reactivity :	Human
Gene :	DNMT3A
Gene ID :	1788
Uniprot ID :	Q9Y6K1
Format :	Purified
Alternative Name :	DNA (cytosine-5)-methyltransferase 3A, DNA methyltransferase HsaIIIa, DNA MTase HsaIIIa, M.HsaIIIa
Isotype :	Mouse IgG1, Kappa
Immunogen Information :	A partial length recombinant protein from DNMT3a was used as the immunogen for this antibody.

Description

Dnmt3a belongs to the mammalian methyltransferase gene family which is responsible for tissue-specific gene expression. Dnmt3a together with other methyltransferases conducts de novo methylation of cytosine residues in CpG islands by the enzymatic addition of methyl residues from S-adenosyl-L-methionine to the 5-carbon atom of the cytosine ring. Dnmt3a also directs a metabolic program by repressing key genes to enable the coupling of insulin secretion to glucose levels during beta cell maturation. Loss of Dnmt3a in pancreatic beta cells prevents this developmental metabolic reprogramming, resulting in loss of GSIS (Glucose-Stimulated Insulin Secretion)). Dnmt3a overexpression has been found in several cancers including AML (Acute Myeloid Leukemia).

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 2-4 µg/ml, FACS: 0.5-1 µg/10⁶

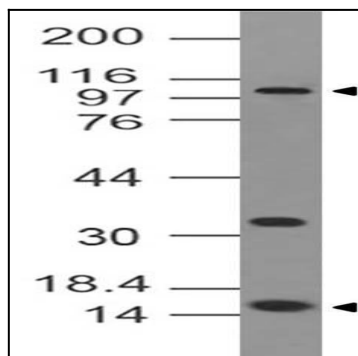


Fig-1: Western blot analysis of DNMT3a. Anti-DNMT3a antibody (Clone: ABM13G4) was used at 2 $\mu\text{g}/\text{ml}$ on h heart lysate.

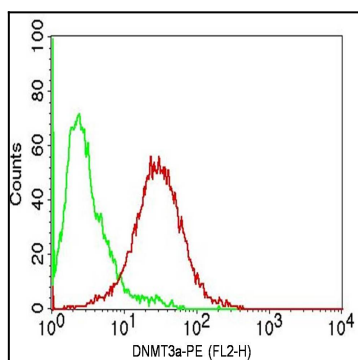


Fig-2: Intracellular flow cytometric analysis of Dnmt3a on HEK293 cells using 0.5 $\mu\text{g}/10^6$ cells of antibody (Clone: ABM13G4). Green represents isotype control; red represents anti-Dnmt3a antibody. Goat anti-mouse PE conjugate was used as secondary antibody. (Cells were fixed with 4% paraformaldehyde for 10 min and washed with PBS by centrifuging at 1100 for 5 min followed by permeabilization for 20 min and washed again as mentioned above. Then cell were incubated with primary antibody for 45 min. and after washing the cells twice in PBS, incubated with conjugated secondary antibody for 30 min. Data acquisition was done after washing twice with PBS as mentioned above).