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N6AMT1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18103a

Product Information

Application	WB, FC, E
Primary Accession	Q9Y5N5
Other Accession	NP_037372.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB38309
Calculated MW	22957
Antigen Region	1-30

Additional Information

Gene ID	29104
Other Names	HemK methyltransferase family member 2, 211-, MHsaHemK2P, N(6)-adenine-specific DNA methyltransferase 1, N6AMT1, C21orf127, HEMK2
Target/Specificity	This N6AMT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human N6AMT1.
Dilution	WB~~1:1000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	N6AMT1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HEMK2 {ECO:0000303|PubMed:18539146, ECO:0000312|HGNC:HGNC:16021}
Function	Methyltransferase that can methylate proteins and, to a lower extent,

arsenic (PubMed:18539146, PubMed:21193388, PubMed:30017583, PubMed:31061526, PubMed:31636962). Catalytic subunit of a heterodimer with TRMT112, which monomethylates 'Lys-12' of histone H4 (H4K12me1), a modification present at the promoters of numerous genes encoding cell cycle regulators (PubMed:31061526). Catalytic subunit of a heterodimer with TRMT112, which catalyzes N5-methylation of Glu residue of proteins with a Gly-Gln-Xaa-Xaa-Xaa-Arg motif (PubMed:18539146, PubMed:31632689, PubMed:31636962). Methylates ETF1 on 'Gln-185'; ETF1 needs to be complexed to ERF3 in its GTP-bound form to be efficiently methylated (PubMed:18539146, PubMed:20606008, PubMed:31061526, PubMed:31636962). May also play a role in the modulation of arsenic-induced toxicity by mediating the conversion of monomethylarsonous acid (3+) into the less toxic dimethylarsonic acid (PubMed:21193388, PubMed:25997655). It however only plays a limited role in arsenic metabolism compared with AS3MT (PubMed:25997655).

Cellular Location Nucleus {ECO:0000250|UniProtKB:Q6SKR2}.

Tissue Location Widely expressed, with highest expression in parathyroid and pituitary glands, followed by adrenal gland and kidney, and lowest expression in leukocytes and mammary gland

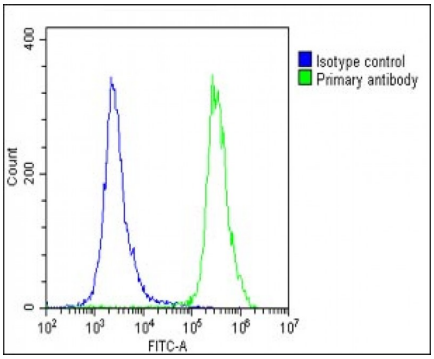
Background

The protein encoded by this gene belongs to the methyltransferase superfamily. Alternative splicing occurs at this locus and two transcript variants encoding distinct isoforms have been identified.

References

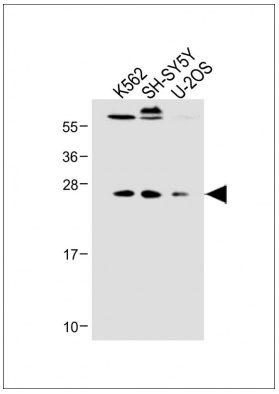
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Figaro, S., et al. FEBS Lett. 582(16):2352-2356(2008)
Seshadri, S., et al. BMC Med. Genet. 8 SUPPL 1, S15 (2007) :
Hwang, S.J., et al. BMC Med. Genet. 8 SUPPL 1, S10 (2007) :

Images



Overlay histogram showing U-2 OS cells stained with AP18103a(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP18103a, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

All lanes : Anti-N6AMT1 Antibody (N-term) at 1:2000 dilution Lane 1: K562 whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lane 3: U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 23 kDa Blocking/Dilution



buffer: 5% NFDM/TBST.