

Product datasheet for TA386574

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OriGene Technologies, Inc.

PRMT1 Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: IF, IHC, WB

Recommended Dilution: Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200, IF:1:50-1:200

Reactivity: Mouse, Human

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

Immunogen: Recombinant Human Protein arginine N-methyltransferase 1 protein (1-248AA)

Formulation: Preservative: 0.03% Proclin 300

Constituents: 50% Glycerol, 0.01M PBS, PH 7.4

Concentration: lot specific

Purification: >95%, Protein G purified

Conjugation: Unconjugated

Storage: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Stability: 1 year from dispatch.

Database Link: Q99873

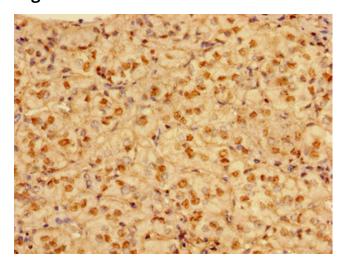




Background:

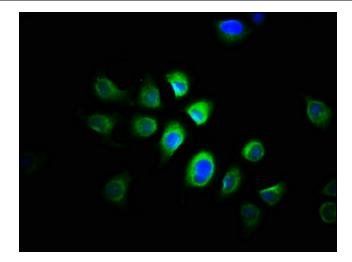
Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, PIAS1, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15, EWS, HABP4 and SERBP1 (PubMed:16879614, PubMed:26876602). Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation. Together with dimethylated PIAS1, represses STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway. Methylates RBM15, promoting ubiquitination and degradation of RBM15 (PubMed:26575292). Methylates FOXO1 and retains it in the nucleus increasing its transcriptional activity. Methylates CHTOP and this methylation is critical for its 5-hydroxymethylcytosine (5hmC)-binding activity (PubMed:25284789). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP- and/or TET1-dependent manner (PubMed:25284789).

Product images:

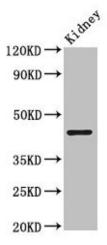


Immunohistochemistry of paraffin-embedded human adrenal gland tissue using TA386574 at dilution of 1:100





Immunofluorescence staining of A549 cells with TA386574 at 1:166, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit lgG(H+L).



Western Blot

Positive WB detected in: Mouse kidney tissue All lanes: PRMT1 antibody at $2.5 \mu g/ml$

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 43, 40, 41, 33 kDa

Observed band size: 43 kDa