abcam

Product datasheet

Anti-EHMT1/GLP antibody [B0422] ab41969

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Overview

Product name Anti-EHMT1/GLP antibody [B0422]

Description Mouse monoclonal [B0422] to EHMT1/GLP

Host species Mouse

Tested applications Suitable for: ICC/IF

Species reactivity Reacts with: Mouse

Immunogen Recombinant fragment corresponding to Mouse EHMT1/GLP aa 134-234.

Database link: Q5DW34

Positive control WT mouse ES cell

General notesThis product was changed from ascites to tissue culture supernatant on 3rd April 2019. Please

note that the dilutions may need to be adjusted accordingly. If you have any questions, please do

not hesitate to contact our scientific support team.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7

Preservative: 0.1% Sodium azide

Constituent: PBS

Purity Tissue culture supernatant

Clonality Monoclonal

Clone number B0422

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Myeloma NS1 Isotype IgG2a

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab41969 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★ <u>(2)</u>	Use at an assay dependent concentration.

Target

Function

Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. Also weakly methylates 'Lys-27' of histone H3 (H3K27me). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. During G0 phase, it probably contributes to silencing of MYC- and E2F-responsive genes, suggesting a role in G0/G1 transition in cell cycle. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53.

Tissue specificity

Widely expressed.

Involvement in disease

Defects in EHMT1 are the cause of chromosome 9q subtelomeric deletion syndrome (9q-syndrome) [MIM:610253]. Common features seen in these patients are severe mental retardation, hypotonia, brachy(micro)cephaly, epileptic seizures, flat face with hypertelorism, synophrys, anteverted nares, cupid bow or tented upper lip, everted lower lip, prognathism, macroglossia, conotruncal heart defects, and behavioral problems.

Sequence similarities

Belongs to the histone-lysine methyltransferase family.

Contains 8 ANK repeats.
Contains 1 pre-SET domain.
Contains 1 SET domain.

Domain

The ANK repeats recognize and bind RELA subunit of NF-kappa-B, when RELA is monomethylated at 'Lys-310' (By similarity). They also specifically recognize and bind H3K9me1

and H3K9me2.

The SET domain mediates interaction with WIZ.

Post-translational modifications

Cellular localization

Phosphorylated upon DNA damage, probably by ATM or ATR.

Nucleus. Chromosome. Associates with euchromatic regions.

Images



Immunocytochemistry/ Immunofluorescence - Anti-EHMT1/GLP antibody [B0422] (ab41969) Ab41969 at 5 µg/ml staining WT mouse ES cell (Positive).

This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-EHMT1/GLP antibody [B0422] (ab41969) Ab41969 at 5µg/ml staining GLP KO mouse ES cell (Negative).

This image was generated using the ascites version of the product.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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