

EHMT2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5429

Product Information

| | |
|--------------------------|------------------------|
| Application | WB |
| Primary Accession | Q96KQ7 |
| Other Accession | Q9Z148 |
| Reactivity | Human |
| Predicted | Mouse, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 132370 |
| Isotype | Rabbit IgG |
| Antigen Source | HUMAN |

Additional Information

| | |
|---------------------------|--|
| Gene ID | 10919 |
| Antigen Region | 361-395 |
| Other Names | Histone-lysine N-methyltransferase EHMT2, 211-, Euchromatic histone-lysine N-methyltransferase 2, HLA-B-associated transcript 8, Histone H3-K9 methyltransferase 3, H3-K9-HMTase 3, Lysine N-methyltransferase 1C, Protein G9a, EHMT2, BAT8, C6orf30, G9A, KMT1C, NG36 |
| Dilution | WB~1:1000 |
| Target/Specificity | This EHMT2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 361-395 amino acids from the Central region of human EHMT2. |
| Format | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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 | EHMT2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

| | |
|-------------|-------|
| Name | EHMT2 |
|-------------|-------|

| | |
|--------------------------|---|
| Synonyms | BAT8, C6orf30, G9A, KMT1C, NG36 |
| 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 (PubMed: 11316813 , PubMed: 20084102). Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication (PubMed: 22387026). Also weakly methylates 'Lys-27' of histone H3 (H3K27me) (PubMed: 11316813). 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. Also able to mono- and dimethylate histone H1-4 at 'Lys-26' (H1.4K26me1 and H1.4K26me2, respectively) (PubMed: 19144645). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53 (PubMed: 20118233). Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself (PubMed: 18438403). |
| Cellular Location | Nucleus. Chromosome. Note=Associates with euchromatic regions (PubMed:11316813). Does not associate with heterochromatin (PubMed:11316813). |
| Tissue Location | Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and peripheral blood leukocytes and lower level in bone marrow |

Background

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 mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication. 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. May also methylate histone H1. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.

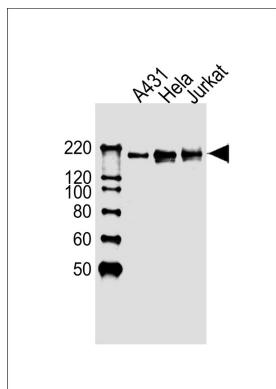
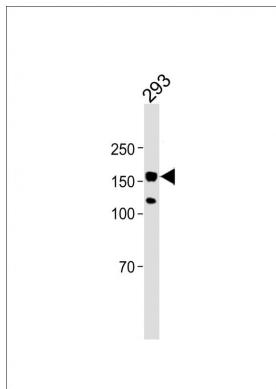
References

Brown S.E.,et al.Mamm. Genome 12:916-924(2001).
 Ota T.,et al.Nat. Genet. 36:40-45(2004).
 Xie T.,et al.Genome Res. 13:2621-2636(2003).
 Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
 Hirakawa M.,et al.Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.

Images

All lanes: Anti-EHMT2 Antibody (Center) at 1:2000 dilution + 293 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band

size: 160 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-EHMT2 Antibody (Center) at 1:1000 dilution Lane 1: A431 whole cell lysates Lane 2: HeLa whole cell lysates Lane 3: Jurkat whole cell lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 132 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.