

**KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI2322****Specification****KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody - Product Information**

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | WB, FC, ICC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Primary Accession | <a href="#">Q96KQ7</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reactivity        | Rat, Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Clonality         | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Isotype           | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Calculated MW     | Predicted, 132 kDa; Observed, 160-170 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Gene Name         | KDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Aliases           | EHMT2<br>Euchromatic Histone Lysine Methyltransferase 2; KMT1C; G9A; C6orf30; BAT8; Euchromatic Histone-Lysine N-Methyltransferase 2; Histone-Lysine N-Methyltransferase EHMT2; Histone H3-K9 Methyltransferase 3; HLA-B Associated Transcript 8; Lysine N-Methyltransferase 1C; H3-K9-HMTase 3; Em:AF134726.3; NG36/G9a; NG36; Histone-Lysine N-Methyltransferase, H3 Lysine-9 Specific 3; Chromosome 6 Open Reading Frame 30; Ankyrin Repeat-Containing Protein; G9A Histone Methyltransferase; HLA-B-Associated Transcript 8; EC 2.1.1.367; Protein G9a; EC 2.1.1.-; GAT8 |
| Immunogen         | A synthesized peptide derived from human EHMT2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody - Additional Information**

|                                                                                                                                                                                                                                                                                      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Gene ID                                                                                                                                                                                                                                                                              | 10919 |
| <b>Other Names</b>                                                                                                                                                                                                                                                                   |       |
| Histone-lysine N-methyltransferase EHMT2, 2.1.1.-, 2.1.1.367, 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 |       |

**KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/11316813" target="\_blank">11316813</a>, PubMed:<a href="http://www.uniprot.org/citations/20084102" target="\_blank">20084102</a>). 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:<a href="http://www.uniprot.org/citations/22387026" target="\_blank">22387026</a>). Also weakly methylates 'Lys-27' of histone H3 (H3K27me) (PubMed:<a href="http://www.uniprot.org/citations/11316813" target="\_blank">11316813</a>). 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:<a href="http://www.uniprot.org/citations/19144645" target="\_blank">19144645</a>). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53 (PubMed:<a href="http://www.uniprot.org/citations/20118233" target="\_blank">20118233</a>). Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself (PubMed:<a href="http://www.uniprot.org/citations/18438403" target="\_blank">18438403</a>).

**Cellular Location**

Nucleus. Chromosome. Note=Associates with euchromatic regions (PubMed:11316813). Does not associate with heterochromatin (PubMed:11316813).

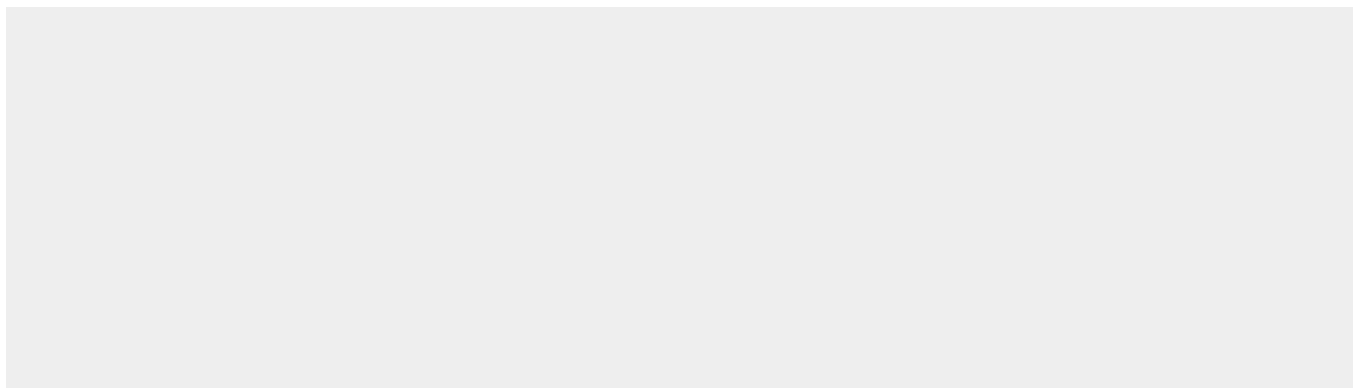
**Tissue Location**

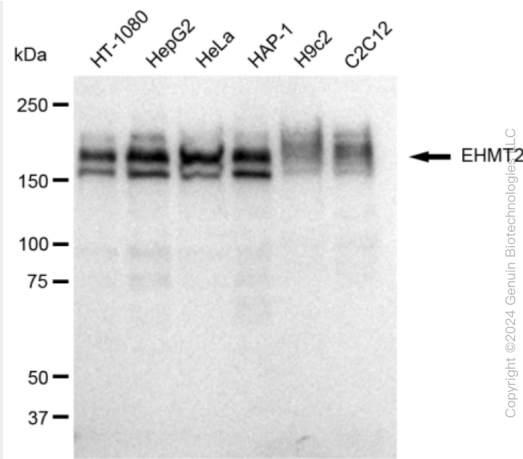
Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and peripheral blood leukocytes and lower level in bone marrow

**KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody - Protocols**

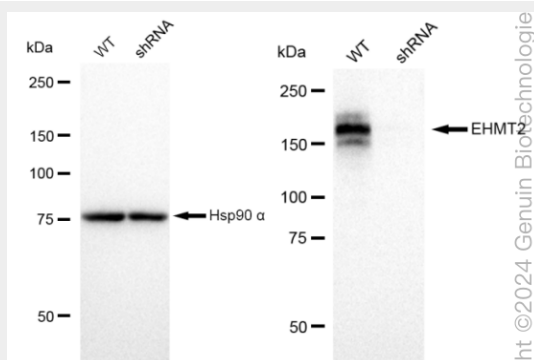
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

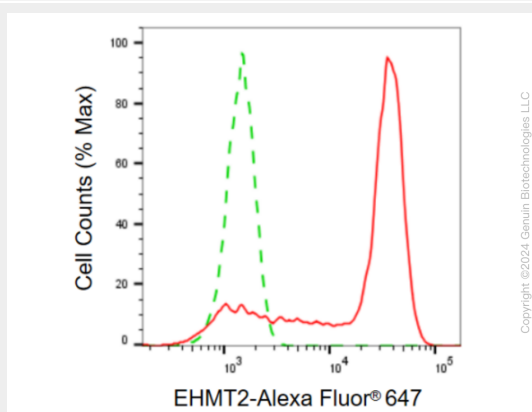
**KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody - Images**



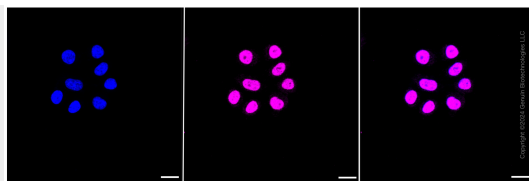
Western blotting analysis using anti-EHTM2 antibody (Cat#AGI2322). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-EHTM2 antibody (Cat#AGI2322, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-EHTM2 antibody (Cat#AGI2322). EHTM2 expression in wild type (WT) and EHTM2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-EHTM2 antibody (Cat#AGI2322, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of EHTM2 expression in HepG2 cells using EHTM2 antibody (Cat#AGI2322, 1:2,000). Green, isotype control; red, EHTM2.



Immunocytochemical staining of HepG2 cells with EHMT2 antibody (Cat#AGI2322, 1:1,000). Nuclei were stained blue with DAPI; EHMT2 was stained magenta with Alexa Fluor® 647. Scale bar: 20  $\mu$ m.