

Product datasheet

Anti-KMT6 / EZH2 antibody [EPR9307(2)] - N-terminal ab191080

KO VALIDATED Recombinant RabMAB

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Overview

Product name	Anti-KMT6 / EZH2 antibody [EPR9307(2)] - N-terminal
Description	Rabbit monoclonal [EPR9307(2)] to KMT6 / EZH2 - N-terminal
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human breast carcinoma tissue; HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p>

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 long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR9307(2)
Isotype	IgG

Applications

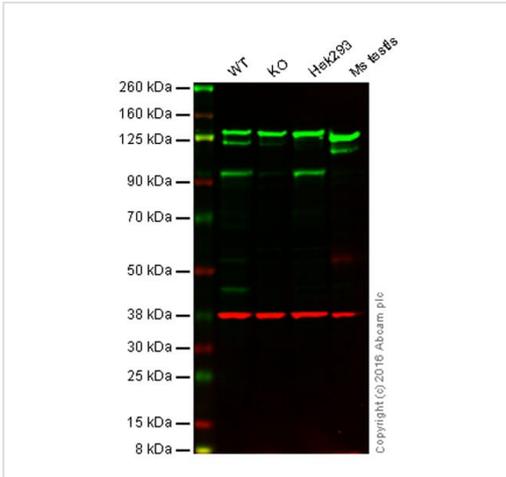
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab191080 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/90. Purified format. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/500. Detects a band of approximately 93 kDa (predicted molecular weight: 85 kDa).
ICC/IF	★ ★ ★ ★ ★ (1)	1/250.
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' and 'Lys-27' of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Compared to EZH2-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXC8, HOXA9, MYT1, CDKN2A and retinoic acid target genes.
Tissue specificity	Expressed in many tissues. Overexpressed in numerous tumor types including carcinomas of the breast, colon, larynx, lymphoma and testis.
Sequence similarities	Belongs to the histone-lysine methyltransferase family. EZ subfamily. Contains 1 SET domain.
Developmental stage	Expression decreases during senescence of embryonic fibroblasts (HEFs). Expression peaks at the G1/S phase boundary.
Post-translational modifications	Phosphorylated by AKT1. Phosphorylation by AKT1 reduces methyltransferase activity.
Cellular localization	Nucleus.

Images



Western blot - Anti-KMT6 / EZH2 antibody
[EPR9307(2)] - N-terminal (ab191080)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

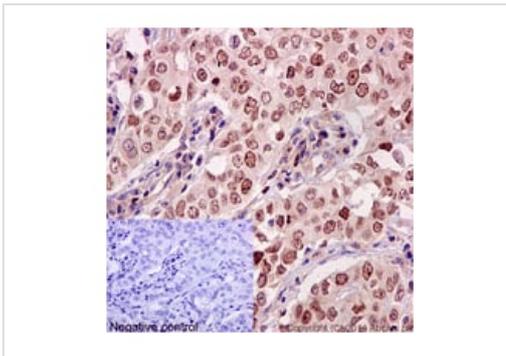
Lane 2: KMT6 / EZH2 knockout HAP1 cell lysate (20 µg)

Lane 3: HEK293 cell lysate (20 µg)

Lane 4: Ms testis tissue lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab191080 observed at 93 kDa. Red - loading control, ab8245, observed at 37 kDa.

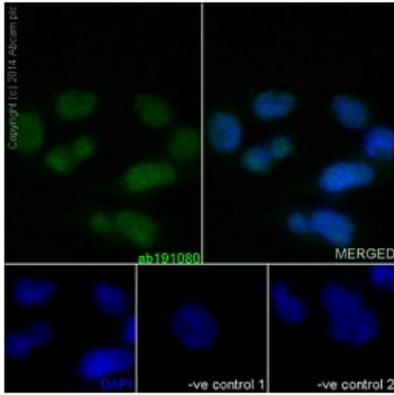
ab191080 was shown to recognize KMT6 / EZH2 when KMT6 / EZH2 knockout samples were used, along with additional cross-reactive bands. Wild-type and KMT6 / EZH2 knockout samples were subjected to SDS-PAGE. ab191080 and ab8245 (loading control to GAPDH) were diluted at 1/500 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KMT6 / EZH2 antibody
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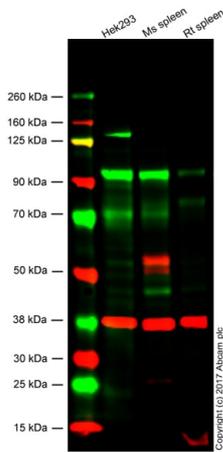
Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labeling KMT6 / EZH2 with ab191080 at 1/250 dilution followed by pre-diluted HRP Polymer for Rabbit IgG secondary antibody and counter-stained with Hematoxylin (inset: negative control).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-KMT6 / EZH2 antibody [EPR9307(2)] - N-terminal (ab191080)

Immunofluorescent analysis of HeLa cells (4% Paraformaldehyde-fixed; 0.1% tritonX-100-permeabilized) labeling KMT6 / EZH2 with ab191080 at 1/250 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) secondary at 1/200 dilution and counter-stained with DAPI (blue).



Western blot - Anti-KMT6 / EZH2 antibody [EPR9307(2)] - N-terminal (ab191080)

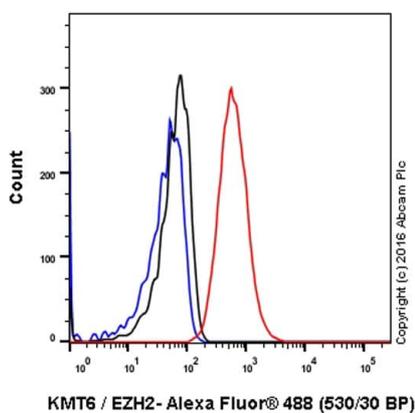
Lane 1: HEK293 cell lysate (20 µg)

Lane 2: Mouse spleen tissue lysate (20 µg)

Lane 3: Rat spleen tissue lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - ab191080 observed at 93 kDa. Red - loading control, ab8245, observed at 37 kDa.

Human, mouse and rat extracts were subjected to SDS-PAGE. ab191080 and ab8245 (loading control to GAPDH) were diluted at 1/500 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-KMT6 / EZH2 antibody [EPR9307(2)] - N-terminal (ab191080)

ab191080 staining KMT6 / EZH2 in the human cell line Jurkat (human acute T cell leukemia) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/90. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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