## Overview

**Product name**  
Anti-KMT6 / EZH2 antibody

**Description**  
Rabbit polyclonal to KMT6 / EZH2

**Host species**  
Rabbit

**Tested applications**  
Suitable for: WB, IP, IHC-P

**Species reactivity**  
Reacts with: Mouse, Human  
Predicted to work with: Sheep, Rabbit, Horse, Chicken, Guinea pig, Cow, Dog, Turkey, Pig, Xenopus laevis, Chimpanzee, Zebrafish, Rhesus monkey, Gorilla, Xenopus tropicalis

**Immunogen**  
Synthetic peptide within Human KMT6/ EZH2 aa 696-746. The exact sequence is proprietary.  
Sequence:  
YAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADA  
LKYVGEREMEIP  
Database link: Q15910

**Positive control**  
293T, HeLa, Jurkat, and Mouse TCMK-1 whole cell lysate.

## Properties

**Form**  
Liquid

**Storage instructions**  

**Storage buffer**  
Preservative: 0.09% Sodium azide  
 Constituent: 99% Tris citrate/phosphate

**pH**  
7-8

**Purity**  
Immunogen affinity purified

**Clonality**  
Polyclonal

**Isotype**  
IgG

## Applications
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.

Applications
Our Abpromise guarantee covers the use of ab186006 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>Use at 2-10 µg/mg of lysate.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
</tbody>
</table>

Target Images
Lane 1: Anti-KMT6 / EZH2 antibody (ab186006) at 1 µg
Lanes 2-4: Anti-KMT6 / EZH2 antibody (ab186006) at 1 µg/ml

Lane 1: 293T whole cell lysate
Lane 2: HeLa whole cell lysate
Lane 3: Jurkat whole cell lysate
Lane 4: Mouse TCMK-1 cells lysate

Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

**Predicted band size:** 85 kDa

**Exposure time:** 3 minutes

Mouse plasmacytoma tissue stained with ab186006 at a dilution of 1:1000 to detect EZH2.

Human ovarian tissue stained with ab186006 at a dilution of 1:1000 to detect EZH2.
Detection of KMT6 / EZH2 by Western Blot of Immunoprecipitate.

Lane 1: ab186006 at 1 µg/ml labeling KMT6 / EZH2 in 293T whole cell lysate immunoprecipitated using ab186006 at 6µg/mg lysate (1 mg/IP; 20% of IP loaded/lane).

Lane 2: Control IgG

Detection: Chemiluminescence with an exposure time of 3 minutes.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors