

## Product datasheet

### Recombinant human EZH2 + EED + SUZ12 + AEBP2 + RBBP4 protein ab198146

[2 Images](#)

#### Description

<b>Product name</b>	Recombinant human EZH2 + EED + SUZ12 + AEBP2 + RBBP4 protein
<b>Biological activity</b>	0.04 pmol/min/μg
<b>Purity</b>	> 96 % SDS-PAGE. Affinity purified.
<b>Expression system</b>	Baculovirus infected insect cells
<b>Accession</b>	<a href="#"><u>Q15910</u></a> <a href="#"><u>O75530</u></a> <a href="#"><u>Q15022</u></a> <a href="#"><u>Q6ZN18-2</u></a> <a href="#"><u>Q09028</u></a>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Amino Acid Sequence 1</b>	
<b>Species</b>	Human
<b>Predicted molecular weight</b>	86 kDa including tags
<b>Amino acids</b>	2 to 746
<b>Tags</b>	His tag N-Terminus
<b>Amino Acid Sequence 2</b>	
<b>Species</b>	Human
<b>Predicted molecular weight</b>	51 kDa including tags
<b>Amino acids</b>	2 to 441
<b>Tags</b>	DDDDK tag N-Terminus
<b>Amino Acid Sequence 3</b>	
<b>Species</b>	Human
<b>Predicted molecular weight</b>	87 kDa including tags
<b>Amino acids</b>	2 to 739
<b>Tags</b>	His tag N-Terminus

## Amino Acid Sequence 4

Species	Human
Predicted molecular weight	53 kDa including tags
Amino acids	2 to 503
Tags	His tag N-Terminus

## Amino Acid Sequence 5

Species	Human
Predicted molecular weight	48 kDa including tags
Amino acids	2 to 425
Tags	His tag N-Terminus

## Specifications

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Our **Abpromise guarantee** covers the use of **ab198146** in the following tested applications.

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

Applications	Functional Studies
	SDS-PAGE
Form	Liquid

## Preparation and Storage

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Stability and Storage	Shipped on Dry Ice. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
	pH: 8.00
	Preservative: 1.36% Imidazole
	Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 20% Glycerol (glycerin, glycerine)
This product is an active protein and may elicit a biological response in vivo, handle with caution.	

## General Info

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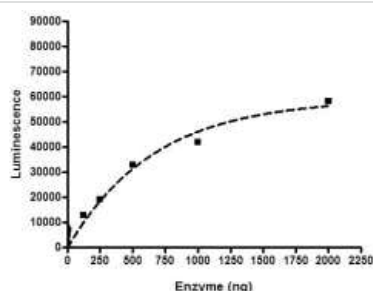
Relevance	EED: Polycomb group (PcG) protein. Component of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' and 'Lys-27' of histone H3, leading to transcriptional repression of the affected target gene. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXC8, HOXA9, MYT1 and CDKN2A. RBBP4: Core histone-binding subunit that may target chromatin assembly factors, chromatin remodeling factors and histone deacetylases to their histone substrates in a manner that is regulated by nucleosomal DNA. Component of several complexes which regulate chromatin metabolism. These include the chromatin assembly factor 1 (CAF-1) complex, which is required for chromatin assembly following DNA replication and DNA repair; the core histone deacetylase (HDAC) complex, which promotes histone deacetylation and consequent transcriptional repression; the nucleosome remodeling and histone deacetylase complex (the NuRD complex), which promotes transcriptional repression by histone deacetylation and nucleosome remodeling; the PRC2/EED-EZH2 complex, which promotes repression of homeotic genes during development; and the NURF (nucleosome
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remodeling factor) complex. SUZ12: Polycomb group (PcG) protein. Component of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. 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 and CDKN2A. EZH2: Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) 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. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4. AEBP2: DNA-binding transcriptional repressor. May interact with and stimulate the activity of the PRC2 complex, which methylates 'Lys-9' and 'Lys-27' residues of histone H3.

## Cellular localization

Chromosome Nucleus

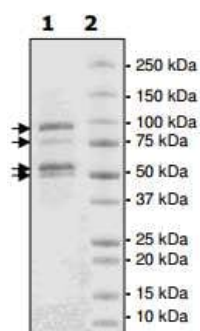
## Images



Functional Studies - Recombinant human EZH2 + EED + SUZ12 + AEBP2 + RBBP4 protein (ab198146)

Specific activity of ab198146.

Assay conditions: 50  $\mu$ L reaction mix (20 mM phosphate buffer pH 7.4, 0.05% Tween-20, 20  $\mu$ M S-adenosylmethionine, and 50-200 ng enzyme complex) add to the wells coated with the substrate. Incubate for 1 hour. Add antibody against methylated K27 residue of histone H3, incubate 1 hour. Then, add secondary HRP-labeled antibody and incubate 30 minutes. Finally, add HRP chemiluminescent substrates and read luminescence.



SDS-PAGE - Recombinant human EZH2 + EED + SUZ12 + AEBP2 + RBBP4 protein (ab198146)

4-20% gradient SDS-PAGE Coomassie staining.

Lane 1: 6.2  $\mu$ g ab198146 enzyme complex

Lane 2: Protein Marker

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

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