

## EED Protein, Human (sf9, His-GST)

Cat. No.:	HY-P74179
Synonyms:	EED; HEED; Polycomb protein EED; WAIT1
Species:	Human
Source:	Sf9 insect cells
Accession:	O75530 (M1-R441)
Gene ID:	8726
Molecular Weight:	75-85 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0, 2 mM GSH, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>EED, a Polycomb group (PcG) protein, serves as a key component of the PRC2/EED-EZH2 complex, contributing to the methylation of 'Lys-9' and 'Lys-27' residues on histone H3, resulting in the transcriptional repression of target genes. It plays a crucial role in recognizing trimethylated 'Lys-26' of histone H1, inhibiting the methyltransferase activity of the PRC2 complex on nucleosomal histone H3 'Lys-27'. Conversely, recognition of 'Lys-27' trimethylation enables the propagation of this repressive mark. Beyond its role in histone modification, the PRC2/EED-EZH2 complex may act as a platform recruiting DNA methyltransferases, bridging two distinct epigenetic repression systems. Genes subject to repression by this complex include HOXC8, HOXA9, MYT1, and CDKN2A. Comprising EED, EZH2, SUZ12, RBBP4, and RBBP7, and possibly AEBP2, the PRC2/EED-EZH2 complex requires EED, EZH2, and SUZ12 as minimum components for its methyltransferase activity. Furthermore, EED participates in the PRC2/EED-EZH1 complex, which involves EED, EZH1, SUZ12, RBBP4, and AEBP2. The intricate network of interactions, including those with histones, DNMTs, and other proteins, highlights EED's pivotal role in epigenetic regulation.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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