

Recombinant EZH2 protein complex

Catalog No: 31337

Expressed In: Baculovirus

Quantity: 25 µg

Concentration: 0.51 µg/µl

Source: Human

Buffer Contents: 25 µg recombinant EZH2 protein complex (contains EZH2, EED and Suz12 proteins) supplied in PBS (10 mM Na₂HPO₄/KH₂PO₄), pH 7.4, 2.7 mM KCl, and 138 mM NaCl.

Background: EZH2, EED and Suz12 are present in the PRC protein complexes that function as mediators of epigenetic transcriptional silencing. **EZH2 – (Enhancer of Zeste homolog 2, also designated Enx1 and SETDB1)** is a human homolog of the *Drosophila* Enhancer of Zeste protein. It contains a SET domain that catalyzes the mono-, di- and trimethylation of Histone H3 Lys27. Polycomb group proteins repress gene expression by binding to chromatin and locally altering chromatin structure. Deregulation of **EZH2** is linked to a variety of cancers.

Protein Details: Recombinant human EZH2 (accession number NM_004456, amino acids 2-end with an N-terminal His-Tag, molecular weight 86 kDa) was coexpressed in a baculovirus expression system along with human EED (accession number NM_003797, amino acids 2-end with an N-terminal FLAG-Tag, molecular weight 51 kDa) and human Suz12 (accession number NM_015355, amino acids 2-end with an N-terminal His-Tag, molecular weight 87 kDa).

Application Notes: Recombinant EZH2 protein complex is suitable for use in histone methyltransferase assays.

Specific Activity: 0.08 pmol/min/µg.

Assay conditions: Prepare a 50 µl reaction mix (20 mM phosphate pH 7.4, 0.05% Tween-20, 40 µM S-adenosylmethionine, and 250-2000 ng enzyme complex) and add to substrate-coated wells with the substrate on a Thermo Neutravidin black plate. Incubate for 1 hr. Add anti-methyl histone H3K27 antibody and incubate 1hr. Next, incubate 1h with the HRP-labeled secondary antibody followed by chemiluminescent detection.

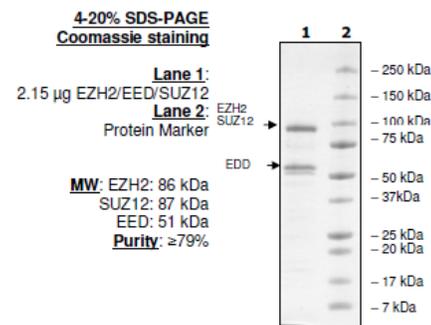
References:

This product was used in the following publications:

Mol. Cell. (2016). 61(2):247-59. PMID: 26778125. (Histone Methyltransferase / HMT Assay)

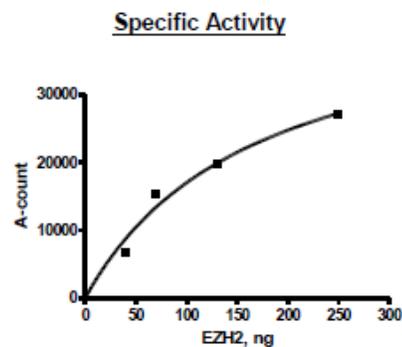
MAbs. (2018) May/Jun;10(4):539-546. PMID: 29485921.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.



EZH2 protein gel.

EZH2 run on an SDS-PAGE gel and stained with Coomassie blue. Arrows indicate recombinant proteins as labeled.



EZH2 complex activity assay.

Recombinant EZH2 activity measured using a fluorescent histone H3 lysine 27 methyltransferase assay.