

## Recombinant EZH1 Complex

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**Catalog No:** 31500, 31904

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 1 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant EZH1 Complex was expressed in Sf9 cells and supplied at a concentration of 1 µg/µl in 25 mM Hepes pH 7.5, 300 mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

**Background:** **EZH1** (Enhancer Of Zeste Homolog 1) is a Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH1 complex, which methylates '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. Required for embryonic stem cell derivation and self-renewal, suggesting that it is involved in safeguarding embryonic stem cell identity. Compared to EZH1-containing complexes, it is less abundant in embryonic stem cells, has weak methyltransferase activity and plays a less critical role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation.

**Protein Details:** Recombinant EZH1 Complex contains full length human EZH1 protein (Accession number NP\_001982.2) with N-terminal Flag tag and MW= 86.3 kDa; full length human SUZ12 (Accession No. NP\_056170.2), with N-terminal 6×His tag and MW= 86.1 kDa; full length human EED (Accession No. NP\_003788.2), N-terminal 6×His tag and MW= 53.2 kDa; full length human RbAp46 (Accession No. NP\_001185648.1), N-terminal 6×His-tag and MW= 55.3 kDa, and full length human RbAp48 (Accession No. NP\_005601.1), N-terminal 6×His-tag and MW= 50.7 kDa, all individually expressed in Sf9 cells. The recombinant protein is >95% pure by SDS-PAGE.

**Application Notes:** Recombinant EZH1 Complex is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

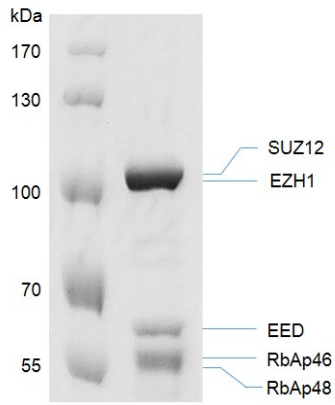
**Specific Activity:** H3K27me(1-3) methyltransferase

**HMT Assay Conditions:** 3.3 µM H3K27me0 (16-37aa) peptide was incubated with different concentrations of recombinant EZH1 Complex in reaction buffer containing 50 mM TrisCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl<sub>2</sub>, 1 mM TCEP, 100 µM SAM for 3 hours at room temperature. Activity was detected by HTRF.

**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.

This product is for research use only and is not for use in diagnostic procedures.

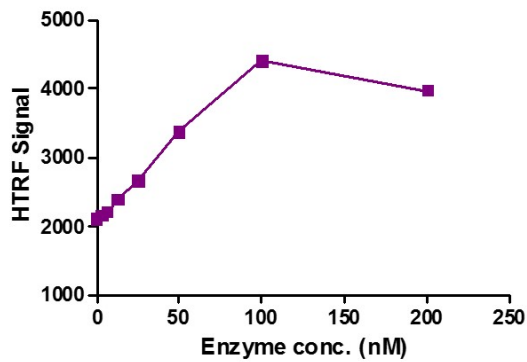
### EZH1 Complex



### Recombinant EZH1 Complex gel

EZH1 Complex was run on an 10% SDS-PAGE gel and stained with Coomassie blue.

### EZH1 Complex Titration



### Recombinant EZH1 Complex HTRF activity assay

3.3  $\mu$ M H3K27me0 (16-37aa) peptide was incubated with EZH1 Complex in reaction buffer for 3 hour at room temperature. EZH1 Complex was used in a HTRF assay to determine enzyme linearity. Methylated peptide (H3K27me1) was measured using H3K27me1-specific antibody.