

Recombinant EZH2/SUZ12/EED protein

Catalog No: 82166, 82766

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Source: Human

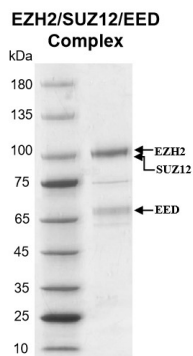
Buffer Contents: Recombinant EZH2 / SUZ12 / EED Complex is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

Background: **PRC2 (Polycomb Repressive Complex 2)** is one of the two classes Polycomb-group, or PcG proteins (the other being PRC1) that are important epigenetic determinants of stem cell identity. They play an important role in long-term epigenetic silencing of genes during cell fate determination and differentiation. PRC2 functions as a repressor of chromatin. PRC2 is required to target recruitment to specific DNA sequences (termed Polycomb Response Elements or PREs) of genomic regions to be silenced. Once associated with chromatin, the PRC2 subunit EZH2 has histone methyltransferase activity that catalyzes the trimethylation of histone H3 at Lys27. H3K27me3 is well established as a hallmark of regions of repressed chromatin. Trimethylation of Lys27 leads to the recruitment of PRC1 through the binding of H3K27me3 by chromodomain-containing proteins in PRC1. PRC1 is responsible for long-term gene silencing after cellular differentiation.

Protein Details: Recombinant EZH2 / SUZ12 / EED Complex that includes full length EZH2, SUZ12 and EED (accession numbers NP_001190176.1, NP_056170, NP_003788.2, respectively) was expressed in Sf9 and contains an N-terminal FLAG tag at the N-terminus of EZH2. The molecular weights of expressed EZH2, SUZ12 and EED are 87 kDa, 83 kDa, 50.2 kDa, respectively.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

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 for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



Recombinant EZH2 / SUZ12 / EED protein gel

4-20% SDS-PAGE gel

MW:

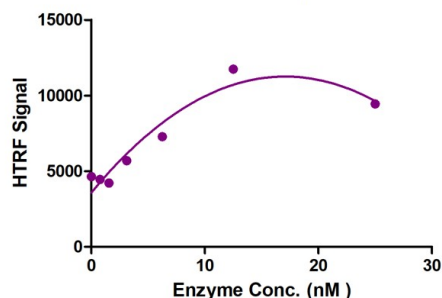
EZH2: 87 kDa

SUZ12: 83 kDa

EED: 50.2 kDa

Purity: >90%

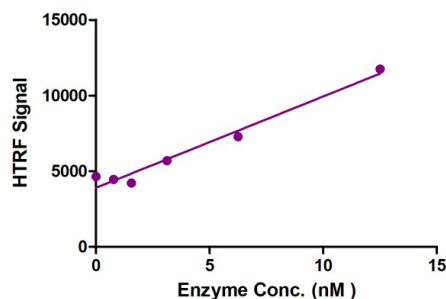
EZH2/SUZ12/EED Complex Titration



HTRF assay for EZH2 / SUZ12 / EED Complex activity

1 μ M H3 (16-37) peptide was incubated with different concentration of EZH2 / SUZ12 / EED Complex in 10 μ l reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP and 50 μ M SAM for 3 hours, then 10 μ l anti-H3K27me1 antibody and SA-XL665 mixture (each 1:100 dilution in HTRF Detection Buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.

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