

PRC2 EZH2 Recombinant Protein | PRC2EZH2 recombinant protein

Recombinant PRC2 EZH2 (Y641F) complex

CATALOG # AAA59653	HOST Baculovirus
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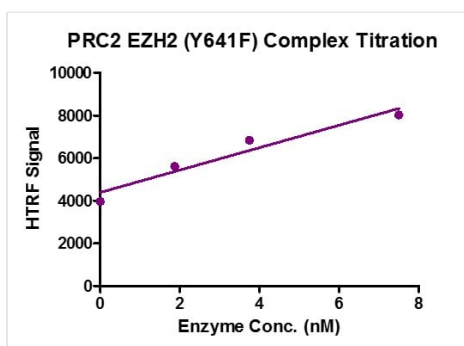
PRODUCT SYNONYMS

PRC2 EZH2; Recombinant PRC2 EZH2 (Y641F) complex; PRC2EZH2 recombinant protein

PRODUCT SPECIFICATIONS

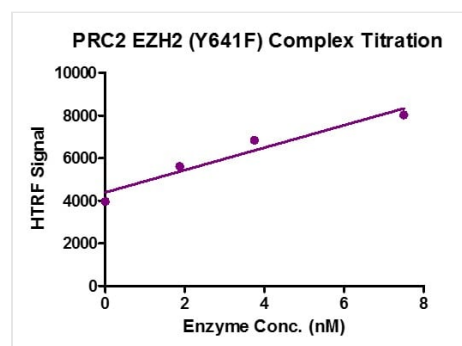
Host	Baculovirus
Purity/Purification	The recombinant protein is >85% pure by SDS-PAGE.
Form/Format	Recombinant PRC2 EZH2 (Y641F) complex is supplied in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	PRC2 EZH2(Y641F) complex is suitable for use in the study of enzyme kinetics, inhibitor screening and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



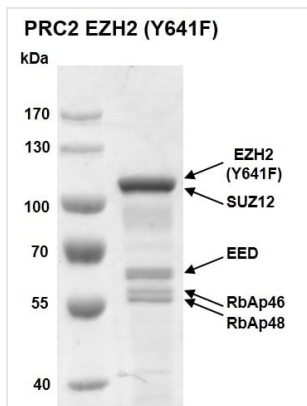
Application Data

HTRF Assay for Recombinant PRC2 EZH2(Y641F) complex activity. 1 ?M histone H3K27me2 (21-44aa.) peptide was incubated with different concentrations of Recombinant PRC2 EZH2 (Y641F) Complex in reaction buffer including 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP and 50 ?M SAM for 3 hours at room temperature. Then 10 ?l anti-H3K27me3 antibody and SA-XL665 mixture (1:100 dilution in HTRF Detection Buffer) was added to each reaction system and incubated for 30 min at room temperature. HTRF assay was used for detection. Fluorescence intensity at 620 nm and 665 nm were measured respectively. The final HTRF signal was obtained by formula: HTRF signal = F665/F620*10000.



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SDS-PAGE

Recombinant PRC2 EZH2 (Y641F) complex protein gel. PRC2 EZH2(Y641F) complex was run on an 8% SDS-PAGE gel and stained with Coomassie Blue. MW of components: EZH2 (Y641F): 87 kDa. SUZ12: 83 kDa. EED: 50.2 kDa. RbAp46: 47.8 kDa. RbAp48: 47.7 kDa. Purity: 85%

ADDITIONAL INFORMATION

Related Product Information for PRC2EZH2 recombinant protein

Short Description: Recombinant PRC2 EZH2 (Y641F) complex that includes full-length EZH2 with a Y641F mutation complexed with full-length SUZ12, EED and RbAp46/48 (accession numbers NP_001190176.1, NP_056170, NP_003788.2, NP_002884.1, and NP_005601.1, respectively) was expressed in Sf9 and contains an N-terminal DYKDDDDK tag at the N-terminus of EZH2. The molecular weights of expressed EZH2 (Y641F), SUZ12, EED and RbAp46/48 are 87 kDa, 83 kDa, 50.2 kDa, 47.8 kDa and 47.7 kDa, respectively. 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. Recombinant PRC2 EZH2 (Y641F) complex is a mutant version of our wild-type PRC2 complex that contains a Tyr-to-Phe mutation at tyrosine 641 of the SET domain of EZH2. Somatic mutations of tyrosine 641, including Y641F, Y641N, Y641C, Y641S and Y641H, have been identified in patients with non-Hodgkin lymphoma and have been shown to alter substrate specificity and catalytic activity of EZH2 for histone H3 lysine 27 (H3K27) methylation states resulting in increased H3K27 trimethylation. PRC2 EZH2 (Y641F) complex can be used to study enzyme kinetics and perform inhibitor screening.

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. Recombinant PRC2 EZH2(Y641F) Complex is a mutant version of our wild-type PRC2 Complex that contains a Tyr-to-Phe mutation at tyrosine 641 of the SET domain of EZH2. Somatic mutations of tyrosine 641, including Y641F, Y641N, Y641C, Y641S and Y641H, have been identified in patients with non-Hodgkin lymphoma and have been shown to alter substrate specificity and catalytic activity of EZH2 for histone H3 lysine 27 (H3K27) methylation states resulting in increased H3K27 trimethylation.

Product Categories/Family for PRC2EZH2 recombinant protein

[Recombinant Proteins](#); [Histone Methyltransferase \(HMT\)](#); [Transcription](#)

NCBI AND UNIPROT INFORMATION

NCBI GI

322506097

NCBI GeneID	2146
NCBI Accession #	NP_001190176.1; NP_056170; NP_003788.2; NP_002884.1; and NP_005601.1
NCBI GenBank Nucleotide #	NM_001203247.1
UniProt Accession #	Q15910; Q15755; Q75MG3; Q92857; Q96FI6; B2RAQ1; B3KS30; B7Z1D6; B7Z7L6
Molecular Weight	746
NCBI Official Full Name	histone-lysine N-methyltransferase EZH2 isoform c
NCBI Official Synonym Full Names	enhancer of zeste homolog 2 (Drosophila)
NCBI Official Symbol	EZH2
NCBI Official Synonym Symbols	WVS; ENX1; EZH1; KMT6; WVS2; ENX-1; EZH2b; KMT6A
NCBI Protein Information	histone-lysine N-methyltransferase EZH2; lysine N-methyltransferase 6
UniProt Protein Name	Histone-lysine N-methyltransferase EZH2
UniProt Gene Name	EZH2
UniProt Synonym Gene Names	KMT6
UniProt Entry Name	EZH2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/ezh2-recombinant-protein-baculovirus/59653>