

Datasheet for ABIN3135370
EZH2 Protein (AA 1-746) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	EZH2
Protein Characteristics:	AA 1-746
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EZH2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MGQTGKKSEK GPVCWRKRVK SEYMRLRQLK RFRRADDEVKT MFSSNRQKIL ERTETLNQEW KQRRIQPVHI MTSVSSLRGT RECSVTSOLD FPAQVIPLKT LNAVASVPIM YWSPLQQNF MVEDETVLHN IPYMGDEVLD QDGTFFIELI KNYDGKVHGD RECGFINDEI FVELVNALGQ YNDDDDDDDG DDPDEREEKQ KDLEDNRDDK ETCPPRKFPK DKIFEAISSM FPDKGTADEL KEYKELTEQ QLPALPPEC TPNIDGPNK SVQREQSLHS FHTLFCRRCF KYDCFLHPPH ATPNTYKRKN TETALDNKPC GPQCYQHLEG AKEFAAALTA ERIKTPPKRP GGRRRGRLPN NSSRPSTPTI SVLESKDTDS DREAGTETGG ENNDKEEEEK KDETSSSSEA NSRCQTPIKM KPNIEPPENV EWSGAEASMF RVLIGTYIDN FCAIARLIGT KTCRQVYEFR VKESSIAPV PTEDVDTPPR KKKRKHLRWA AHCRKIQLKK DGSSNHVYNY QPCDHPRQPC DSSCPCVIAQ NFCEKFCQCS SECQNRFPKC RCKAQCNKQ CPCYLAVREC DPLCLTCGA ADHWDSKNVS CKNCISIRGS KKHLLAPSD VAGWGIFIKD PVQKNEFISE YCGEISQDE ADRRGKVYDK YMCSFLFNLN NDFVVDATRK GNKIRFANHS VNPNCYAKVM MVNGDHRIGI FAKRAIQTGE
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ELFFDYRYSQ ADALKYVGIE REMEIP

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Ezh2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Product Details

Grade: Crystallography grade

Target Details

Target: EZH2

Alternative Name: Ezh2 ([EZH2 Products](#))

Background: Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates (H3K9me) and 'Lys-27' (H3K27me) 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. Compared to EZH2-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXA7, HOXB6 and HOXC8. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4 and the nuclear receptor RORA. Regulates the circadian clock via histone methylation at the promoter of the circadian genes. Essential for the CRY1/2-mediated repression of the transcriptional activation of PER1/2 by the CLOCK-ARNTL/BMAL1 heterodimer, involved in the di and trimethylation of 'Lys-27' of histone H3 on PER1/2 promoters which is necessary for the CRY1/2 proteins to inhibit transcription. {ECO:0000269|PubMed:12689588, ECO:0000269|PubMed:15516932, ECO:0000269|PubMed:15520282, ECO:0000269|PubMed:16717091, ECO:0000269|PubMed:18086877, ECO:0000269|PubMed:19026780}.

Molecular Weight: 86.2 kDa Including tag.

UniProt: [Q61188](#)

Pathways: [Retinoic Acid Receptor Signaling Pathway](#), [Regulation of Muscle Cell Differentiation](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible

Application Details

options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process