Datasheet for ABIN3092436

EZH2 Protein (AA 1-746) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	EZH2
Protein Characteristics:	AA 1-746
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EZH2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MGQTGKKSEK GPVCWRKRVK SEYMRLRQLK RFRRADEVKS MFSSNRQKIL ERTEILNQEW KQRRIQPVHI LTSVSSLRGT RECSVTSDLD FPTQVIPLKT LNAVASVPIM YSWSPLQQNF MVEDETVLHN IPYMGDEVLD QDGTFIEELI KNYDGKVHGD RECGFINDEI FVELVNALGQ YNDDDDDDDG DDPEEREEKQ KDLEDHRDDK ESRPPRKFPS DKIFEAISSM FPDKGTAEEL KEKYKELTEQ QLPGALPPEC TPNIDGPNAK SVQREQSLHS FHTLFCRRCF KYDCFLHPFH ATPNTYKRKN TETALDNKPC GPQCYQHLEG AKEFAAALTA ERIKTPPKRP GGRRRGRLPN NSSRPSTPTI NVLESKDTDS DREAGTETGG ENNDKEEEEK KDETSSSSEA NSRCQTPIKM KPNIEPPENV EWSGAEASMF RVLIGTYYDN FCAIARLIGT KTCRQVYEFR VKESSIIAPA PAEDVDTPPR KKKRKHRLWA AHCRKIQLKK DGSSNHVYNY QPCDHPRQPC DSSCPCVIAQ NFCEKFCQCS SECQNRFPGC RCKAQCNTKQ CPCYLAVREC DPDLCLTCGA ADHWDSKNVS CKNCSIQRGS KKHLLLAPSD VAGWGIFIKD PVQKNEFISE YCGEIISQDE ADRRGKVYDK YMCSFLFNLN NDFVVDATRK GNKIRFANHS VNPNCYAKVM MVNGDHRIGI FAKRAIQTGE

	ELFFDYRYSQ ADALKYVGIE REMEIP **Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification. • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • 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. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

	(ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	EZH2
Alternative Name:	EZH2 (EZH2 Products)
Background:	Histone-lysine N-methyltransferase EZH2 (EC 2.1.1.356) (ENX-1) (Enhancer of zeste homolog 2) (Lysine N-methyltransferase 6),FUNCTION: Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' (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. Displays a preference for substrates with less methylation, loses activity when progressively more methyl groups are incorporated into H3K27, H3K27me0 > H3K27me1 > H3K27me2 (PubMed:22323599, PubMed:30923826). Compared to EZH1-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 HOXC8, HOXA9, MYT1, CDKN2A and retinoic acid target genes. 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-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:14532106, ECO:0000269|PubMed:15225548, ECO:0000269|PubMed:15231737, ECO:0000269|PubMed:15385962, ECO:0000269|PubMed:16179254, ECO:0000269|PubMed:16357870,

Target Details

	ECO:0000269|PubMed:16618801, ECO:0000269|PubMed:16717091, ECO:0000269|PubMed:16936726, ECO:0000269|PubMed:17210787, ECO:0000269|PubMed:17344414, ECO:0000269|PubMed:18285464, ECO:0000269|PubMed:19026781, ECO:0000269|PubMed:20935635, ECO:0000269|PubMed:22323599, ECO:0000269|PubMed:23063525, ECO:0000269|PubMed:24474760, ECO:0000269|PubMed:30026490, ECO:0000269|PubMed:30923826}.
Molecular Weight:	85.4 kDa
UniProt:	Q15910
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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

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