Datasheet for ABIN7553828

EZH2 Protein (AA 1-746) (His tag)

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Overview

Quantity:	1 mg
Target:	EZH2
Protein Characteristics:	AA 1-746
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EZH2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant EZH2 Protein expressed in mammalian cells.
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

Product Details

	ELFFDYRYSQ ADALKYVGIE REMEIP **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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 try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

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

Target Details

	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, 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:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months