Datasheet for ABIN7560726

JMJD5 Protein (AA 1-414) (His tag)

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Overview

Quantity:	1 mg
Target:	JMJD5
Protein Characteristics:	AA 1-414
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This JMJD5 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Kdm8 Protein expressed in mammalien cells.
Sequence:	MSEDTTEPLV GSSTLWKELR TLLPDKEEEL KLDLGEKVDR SVAALLRQAV GLFYAGHWQG CLQASEAVLD YSWEKLNTGP WRDVDKEWRR VYSFGCLLKA LCLCQAPQKA TTVVEALRVC DMGLLMGAAI LEDILLKVVA VLQTHQLPGK QPARGPHQDQ PATKKAKCDA SPAPDVMLER MVPRLRCPPL QYFKQHFLVP GRPVILEGVA DHWPCMKKWS LQYIQEIAGC RTVPVEVGSR YTDEDWSQTL MTVDEFIQKF ILSEAKDVGY LAQHQLFDQI PELKRDISIP DYCCLGNGEE EEITINAWFG PQGTISPLHQ DPQQNFLVQV LGRKYIRLYS PQESEAVYPH ETHILHNTSQ VDVENPDLEK FPKFTEAPFL SCILSPGDTL FIPAKYWHYV RSLDLSFSVS FWWS **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.**
Characteristics:	Key Benefits:

Product Details

	• Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	JMJD5
Alternative Name:	Kdm8 (JMJD5 Products)
Background:	Bifunctional peptidase and arginyl-hydroxylase JMJD5 (EC 1.14.11.73) (EC 3.4.-.-) (JmjC domain-containing protein 5) (Jumonji C domain-containing protein 5) (L-arginine (3R)-hydroxylase KDM8) (Lysine-specific demethylase 8),FUNCTION: Bifunctional enzyme that acts both as an endopeptidase and 2-oxoglutarate-dependent monooxygenase. Endopeptidase that cleaves histones N-terminal tails at the carboxyl side of methylated arginine or lysine residues, to generate 'tailless nucleosomes', which may trigger transcription elongation. Preferentially recognizes and cleaves monomethylated and dimethylated arginine residues of histones H2, H3 and H4. After initial cleavage, continues to digest histones tails via its aminopeptidase activity. Upon DNA damage, cleaves the N-terminal tail of histone H3 at monomethylated lysine residues, preferably at monomethylated 'Lys-9' (H3K9me1). The histone variant H3F3A is the major target for cleavage. Additionally, acts as a Fe(2+) and 2-oxoglutarate-dependent monooxygenase, catalyzing (R)-stereospecific hydroxylation at C-3 of 'Arg-137' of RPS6 and 'Arg-141' of RCCD1, but the biological significance of this activity remains to be established. Regulates mitosis through different mechanisms: Plays a role in transcriptional repression of

Target Details

	satellite repeats, possibly by regulating H3K36 methylation levels in centromeric regions together with RCCD1. Possibly together with RCCD1, is involved in proper mitotic spindle organization and chromosome segregation. Negatively regulates cell cycle repressor CDKN1A/p21, which controls G1/S phase transition. Required for G2/M phase cell cycle progression. Regulates expression of CCNA1/cyclin-A1, leading to cancer cell proliferation. Also, plays a role in regulating alpha-tubulin acetylation and cytoskeletal microtubule stability involved in epithelial to mesenchymal transition (By similarity). Regulates the circadian gene expression in the liver (PubMed:30500822). Represses the transcriptional activator activity of the CLOCK-BMAL1 heterodimer in a catalytically-independent manner (By similarity). Negatively regulates the protein stability and function of CRY1, required for AMPK-FBXL3-induced CRY1 degradation (PubMed:30500822). {ECO:0000250|UniProtKB:Q8N371, ECO:0000269|PubMed:30500822}.
Molecular Weight:	47.1 kDa
UniProt:	Q9CXT6
Pathways:	Chromatin Binding

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