Datasheet for ABIN3093403

# KDM3A Protein (AA 1-1321) (Strep Tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | KDM3A |
| Protein Characteristics: | AA 1-1321 |
| Origin: | Human |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This KDM3A protein is labelled with Strep Tag. |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Sequence: | MVLTLGESWP VLVGRRFLSL SAADGSDGSH DSWDVERVAE WPWLSGTIRA VSHTDVTKKD LKVCVEFDGE SWRKRRWIEV YSLLRRAFLV EHNLVLAERK SPEISERIVQ WPAITYKPLL DKAGLGSITS VRFLGDQQRV FLSKDLLKPI QDVNSLRLSL TDNQIVSKEF QALIVKHLDE SHLLKGDKNL VGSEVKIYSL DPSTQWFSAT VINGNPASKT LQVNCEEIPA LKIVDPSLIH VEVVHDNLVT CGNSARIGAV KRKSSENNGT LVSKQAKSCS EASPSMCPVQ SVPTTVFKEI LLGCTAATPP SKDPRQQSTP QAANSPPNLG AKIPQGCHKQ SLPEEISSCL NTKSEALRTK PDVCKAGLLS KSSQIGTGDL KILTEPKGSC TQPKTNTDQE NRLESVPQAL TGLPKECLPT KASSKAELEI ANPPELQKHL EHAPSPSDVS NAPEVKAGVN SDSPNNCSGK KVEPSALACR SQNLKESSVK VDNESCCSRS NNKIQNAPSR KSVLTDPAKL KKLQQSGEAF VQDDSCVNIV AQLPKCRECR LDSLRKDKEQ QKDSPVFCRF FHFRRLQFNK HGVLRVEGFL TPNKYDNEAI GLWLPLTKNV VGIDLDTAKY ILANIGDHFC QMVISEKEAM STIEPHRQVA WKRAVKGVRE MCDVCDTTIF NLHWVCPRCG FGVCVDCYRM KRKNCQQGAA YKTFSWLKCV KSQIHEPENL |

MPTQIIPGKA LYDVGDIVHS VRAKWGIKAN CPCSNRQFKL FSKPASKEDL KQTSLAGEKP TLGAVLQQNP SVLEPAAVGG EAASKPAGSM KPACPASTSP LNWLADLTSG NVNKENKEKQ PTMPILKNEI KCLPPLPPLS KSSTVLHTFN STILTPVSNN NSGFLRNLLN SSTGKTENGL KNTPKILDDI FASLVQNKTT SDLSKRPQGL TIKPSILGFD TPHYWLCDNR LLCLQDPNNK SNWNVFRECW KQGQPVMVSG VHHKLNSELW KPESFRKEFG EQEVDLVNCR TNEIITGATV GDFWDGFEDV PNRLKNEKEP MVLKLKDWPP GEDFRDMMPS RFDDLMANIP LPEYTRRDGK LNLASRLPNY FVRPDLGPKM YNAYGLITPE DRKYGTTNLH LDVSDAANVM VYVGIPKGQC EQEEEVLKTI QDGDSDELTI KRFIEGKEKP GALWHIYAAK DTEKIREFLK KVSEEQGQEN PADHDPIHDQ SWYLDRSLRK RLHQEYGVQG WAIVQFLGDV VFIPAGAPHQ VHNLYSCIKV AEDFVSPEHV KHCFWLTQEF RYLSQTHTNH EDKLQVKNVI YHAVKDAVAM LKASESSFGK P

**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 -

## Product Details

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| | all that's needed is the DNA that codes for the desired protein!<br><br>Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.<br>• 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 (ALiCE®):<br>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.<br>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) |

## Target Details

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| Target: | KDM3A |
| Alternative Name: | KDM3A (KDM3A Products) |
| Background: | Lysine-specific demethylase 3A (EC 1.14.11.65) (JmjC domain-containing histone demethylation protein 2A) (Jumonji domain-containing protein 1A) ([histone H3]-dimethyl-L-lysine(9) demethylase 3A),FUNCTION: Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Preferentially demethylates mono- and dimethylated H3 'Lys-9' residue, with a preference for dimethylated residue, while it has weak or no activity on trimethylated H3 'Lys-9'. Demethylation of Lys residue generates formaldehyde and succinate. Involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes, resulting in H3 'Lys-9' demethylation and transcriptional activation. Involved in spermatogenesis by regulating expression of target genes such as PRM1 and TNP1 which are required for packaging and condensation of sperm chromatin. Involved in obesity resistance through regulation of metabolic genes such as PPARA and UCP1. {ECO:0000269\|PubMed:16603237, ECO:0000269\|PubMed:28262558}. |

## Target Details

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| Molecular Weight: | 147.3 kDa |
| UniProt: | Q9Y4C1 |
| Pathways: | Intracellular Steroid Hormone Receptor Signaling Pathway, Nuclear Hormone Receptor Binding, Warburg Effect |

## Application Details

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| 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.<br>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

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| 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. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | Unlimited (if stored properly) |