Datasheet for ABIN7564169

LSD1 Protein (AA 1-853) (His tag)

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Overview

Quantity:	1 mg
Target:	LSD1 (KDM1A)
Protein Characteristics:	AA 1-853
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LSD1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Kdm1a Protein expressed in mammalien cells.
Sequence:	MLSGKKAAAA AAAAAAAAAA GTEAGSGAAG GAENGSEVAA PPAGLTGPTD MATGAAGERT PRKKEPPRAS PPGGLAEPPG SAGPQAGPTA GPGSATPMET GIAETPEGRR TSRRKRAKVE YREMDESLAN LSEDEYYSEE ERNAKAEKEK KLPPPPPQAP PEEENESEPE EPSGVEGAAF QSRLPHDRMT SQEAACFPDI ISGPQQTQKV FLFIRNRTLQ LWLDNPKIQL TFEATLQQLE APYNSDTVLV HRVHSYLERH GLINFGIYKR IKPLPIKKTG KVIIIGSGVS GLAAARQLQS FGMDVTLLEA RDRVGGRVAT FRKGNYVADL GAMVVTGLGG NPMAVVSKQV NMELAKIKQK CPLYEANGQA VPKEKDEMVE QEFNRLLEAT SYLSHQLDFN VLNNKPVSLG QALEVVIQLQ EKHVKDEQIE HWKKIVKTQE ELKELLNKMV NLKEKIKELH QQYKEASEVK PPRDITAEFL VKSKHRDLTA LCKEYDELAE TQGKLEEKLQ ELEANPPSDV YLSSRDRQIL DWHFANLEFA NATPLSTLSL KHWDQDDDFE FTGSHLTVRN GYSCVPVALA EGLDIKLNTA VRQVRYTASG CEVIAVNTRS TSQTFIYKCD AVLCTLPLGV LKQQPPAVQF VPPLPEWKTS AVQRMGFGNL

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Product Details

	NKVVLCFDRV FWDPSVNLFG HVGSTTASRG ELFLFWNLYK APILLALVAG EAAGIMENIS DDVIVGRCLA ILKGIFGSSA VPQPKETVVS RWRADPWARG SYSYVAAGSS GNDYDLMAQP ITPGPSIPGA PQPIPRLFFA GEHTIRNYPA TVHGALLSGL REAGRIADQF LGAMYTLPRQ ATPGVPAQQS PSM **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: • 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:	LSD1 (KDM1A)
Alternative Name:	Kdm1a (KDM1A Products)
Background:	Lysine-specific histone demethylase 1A (EC 1.14.99.66) (BRAF35-HDAC complex protein BHC110) (Flavin-containing amine oxidase domain-containing protein 2),FUNCTION: Histone demethylase that can demethylate both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. Acts as a corepressor by mediating demethylation of H3K4me, a specific tag for epigenetic transcriptional activation. Demethylates both mono- (H3K4me1) and di-methylated (H3K4me2)

Target Details

	H3K4me. May play a role in the repression of neuronal genes. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of RCOR1/CoREST to achieve such activity. Also acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in ANDR-containing complexes, which mediates phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag that prevents demethylation H3K4me, prevents H3K4me demethylase activity of KDM1A. Demethylates di-methylated 'Lys-370' of p53/TP53 which prevents interaction of p53/TP53 with TP53BP1 and represses p53/TP53-mediated transcriptional activation (By similarity). Demethylates and stabilizes the DNA methylase DNMT1 (By similarity). Demethylates methylated 'Lys-44' and methylated 'Lys-119' of SOX2 (By similarity). Required for gastrulation during embryogenesis. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Effector of SNAI1-mediated transcription repression of E-cadherin/CDH1, CDN7 and KRT8. Required for the maintenance of the silenced state of the SNAI1 target genes E-cadherin/CDH1 and CDN7. {ECO:0000250|UniProtKB:O60341, ECO:0000269|PubMed:17707228, ECO:0000269|PubMed:19098913}.
Molecular Weight:	92.9 kDa
UniProt:	Q6ZQ88
Pathways:	Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Negative Regulation of intrinsic apoptotic Signaling, Warburg Effect

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.

Handling

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

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