Datasheet for ABIN3094190

WHSC1 Protein (AA 1-1365) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	WHSC1
Protein Characteristics:	AA 1-1365
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This WHSC1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEFSIKQSPL SVQSVVKCIK MKQAPEILGS ANGKTPSCEV NRECSVFLSK AQLSSSLQEG VMQKFNGHDA LPFIPADKLK DLTSRVFNGE PGAHDAKLRF ESQEMKGIGT PPNTTPIKNG SPEIKLKITK TYMNGKPLFE SSICGDSAAD VSQSEENGQK PENKARRNRK RSIKYDSLLE QGLVEAALVS KISSPSDKKI PAKKESCPNT GRDKDHLLKY NVGDLVWSKV SGYPWWPCMV SADPLLHSYT KLKGQKKSAR QYHVQFFGDA PERAWIFEKS LVAFEGEGQF EKLCQESAKQ APTKAEKIKL LKPISGKLRA QWEMGIVQAE EAASMSVEER KAKFTFLYVG DQLHLNPQVA KEAGIAAESL GEMAESSGVS EEAAENPKSV REECIPMKRR RRAKLCSSAE TLESHPDIGK STPQKTAEAD PRRGVGSPPG RKKTTVSMPR SRKGDAASQF LVFCQKHRDE VVAEHPDASG EEIEELLRSQ WSLLSEKQRA RYNTKFALVA PVQAEEDSGN VNGKKRNHTK RIQDPTEDAE AEDTPRKRLR TDKHSLRKRD TITDKTARTS SYKAMEAASS LKSQAATKNL SDACKPLKKR NRASTAASSA LGFSKSSSPS ASLTENEVSD SPGDEPSESP YESADETQTE VSVSSKKSER

GVTAKKEYVC QLCEKPGSLL LCEGPCCGAF HLACLGLSRR PEGRFTCSEC ASGIHSCFVC KESKTDVKRC VVTQCGKFYH EACVKKYPLT VFESRGFRCP LHSCVSCHAS NPSNPRPSKG KMMRCVRCPV AYHSGDACLA AGCSVIASNS IICTAHFTAR KGKRHHAHVN VSWCFVCSKG GSLLCCESCP AAFHPDCLNI EMPDGSWFCN DCRAGKKLHF QDIIWVKLGN YRWWPAEVCH PKNVPPNIQK MKHEIGEFPV FFFGSKDYYW THQARVFPYM EGDRGSRYQG VRGIGRVFKN ALQEAEARFR EIKLQREARE TQESERKPPP YKHIKVNKPY GKVQIYTADI SEIPKCNCKP TDENPCGFDS ECLNRMLMFE CHPQVCPAGE FCQNQCFTKR QYPETKIIKT DGKGWGLVAK RDIRKGEFVN EYVGELIDEE ECMARIKHAH ENDITHFYML TIDKDRIIDA GPKGNYSRFM NHSCQPNCET LKWTVNGDTR VGLFAVCDIP AGTELTFNYN LDCLGNEKTV CRCGASNCSG FLGDRPKTST TLSSEEKGKK TKKKTRRRRA KGEGKRQSED ECFRCGDGGQ LVLCDRKFCT KAYHLSCLGL GKRPFGKWEC PWHHCDVCGK PSTSFCHLCP NSFCKEHQDG TAFSCTPDGR SYCCEHDLGA ASVRSTKTEK PPPEPGKPKG KRRRRRGWRR VTEGK

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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

Product Details

	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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	WHSC1
Alternative Name:	NSD2 (WHSC1 Products)
Background:	Histone-lysine N-methyltransferase NSD2 (EC 2.1.1.357) (Multiple myeloma SET domain-containing protein) (MMSET) (Nuclear SET domain-containing protein 2) (Protein trithorax-5) (Wolf-Hirschhorn syndrome candidate 1 protein),FUNCTION: Histone methyltransferase which specifically dimethylates nucleosomal histone H3 at 'Lys-36' (H3K36me2) (PubMed:27571355, PubMed:22099308, PubMed:19808676, PubMed:29728617, PubMed:33941880). Also monomethylates nucleosomal histone H3 at 'Lys-36' (H3K36me) in vitro (PubMed:22099308). Does not trimethylate nucleosomal histone H3 at 'Lys-36' (H3K36me3) (PubMed:22099308). However, specifically trimethylates histone H3 at 'Lys-36' (H3K36me3) at euchromatic regions in embryonic stem (ES) cells (By similarity). By methylating histone H3 at 'Lys-36', involved in the regulation of gene transcription during various biological processes (PubMed:16115125, PubMed:22099308, PubMed:29728617). In ES cells, associates with developmental transcription factors such as SALL1 and represses inappropriate gene transcription mediated by histone deacetylation (By similarity). During heart development, associates with transcription factor NKX2-5 to repress transcription of NKX2-5 target genes (By similarity). Plays an essential role in adipogenesis, by regulating expression of genes involved in pre-adipocyte differentiation (PubMed:29728617). During T-cell receptor (TCR) and CD28-mediated T-cell activation, promotes the transcription of transcription factor BCL6 which is required for follicular helper T

Target Details

	(Tfh) cell differentiation (By similarity). During B-cell development, required for the generation of the B1 lineage (By similarity). During B2 cell activation, may contribute to the control of isotype class switch recombination (CRS), splenic germinal center formation, and the humoral immune response (By similarity). Plays a role in class switch recombination of the immunoglobulin heavy chain (IgH) locus during B-cell activation (By similarity). By regulating the methylation of histone H3 at 'Lys-36' and histone H4 at 'Lys-20' at the IgH locus, involved in TP53BP1 recruitment to the IgH switch region and promotes the transcription of IgA (By similarity). {ECO:0000250|UniProtKB:Q8BVE8, ECO:0000269|PubMed:16115125, ECO:0000269|PubMed:19808676, ECO:0000269|PubMed:22099308, ECO:0000269|PubMed:27571355, ECO:0000269|PubMed:29728617, ECO:0000269|PubMed:33941880}., FUNCTION: [Isoform 1]: Histone methyltransferase which specifically dimethylates nucleosomal histone H3 at 'Lys-36' (H3K36me2). {ECO:0000269|PubMed:22099308}., FUNCTION: [Isoform 4]: Histone methyltransferase which specifically dimethylates nucleosomal histone H3 at 'Lys-36' (H3K36me2) (PubMed:22099308). Methylation of histone H3 at 'Lys-27' is controversial (PubMed:18172012, PubMed:22099308). Mono-, di- or tri-methylates histone H3 at 'Lys-27' (H3K27me, H3K27me2 and H3K27me3) (PubMed:18172012). Does not methylate histone H3 at 'Lys-27' (PubMed:22099308). May act as a transcription regulator that binds DNA and suppresses IL5 transcription through HDAC recruitment (PubMed:11152655, PubMed:18172012). {ECO:0000269|PubMed:11152655, ECO:0000269|PubMed:18172012, ECO:0000269|PubMed:22099308}.
Molecular Weight:	152.3 kDa
UniProt:	O96028
Pathways:	SARS-CoV-2 Protein Interactome

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

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months