

Datasheet for ABIN3095428

## SETD7 Protein (AA 1-366) (Strep Tag)



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### Overview

Quantity:	1 mg
Target:	SETD7
Protein Characteristics:	AA 1-366
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SETD7 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MDSDDDEMVEE AVEGHLDDDG LPHGFCTVTY SSTDRFEGNF VHGEKNGRGK FFFFDGSTLE          GYYVDDALQG QGVYTYEDGG VLQGTVDGE LNGPAQEYDT DGRILFKGQY KDNIRHGVCW          IYYPDGGSLV GEVNEDGEMT GEKIAYVYPD ERTALYGKFI DGEMIEGKLA TLMSTEEGRP          HFELMPGNSV YHFDKSTSSC ISTNALLPDP YESERVYVAE SLISSAGEGL FSKVAVGPNT          VMSFYNGVRI THQEVDSRDW ALNGNTLSLD EETVIDVPEP YNHVSKYCAS LGHKANHSFT          PNCIYDMFVH PRFGPIKCIR TLRAVEADEE LTVAYGYDHS PPGKSGPEAP EWYQVELKAF          QATQQK</p> <p><b>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.</b></p>
Characteristics:	Key Benefits:

## Product Details

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- 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 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

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Target:	SETD7
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## Target Details

Alternative Name: SETD7 ([SETD7 Products](#))

Background: Histone-lysine N-methyltransferase SETD7 (EC 2.1.1.364) (Histone H3-K4 methyltransferase SETD7) (H3-K4-HMTase SETD7) (Lysine N-methyltransferase 7) (SET domain-containing protein 7) (SET7/9),FUNCTION: Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3 (PubMed:11779497, PubMed:11850410, PubMed:12588998, PubMed:12540855, PubMed:16141209). H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation (PubMed:12588998, PubMed:12540855, PubMed:16141209). Plays a central role in the transcriptional activation of genes such as collagenase or insulin (PubMed:16141209, PubMed:12588998). Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription (PubMed:16141209). Has also methyltransferase activity toward non-histone proteins such as CGAS, p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins (PubMed:15099517, PubMed:35210392, PubMed:15525938, PubMed:16415881). Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II (PubMed:15099517, PubMed:16415881). Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation (PubMed:17108971, PubMed:15525938, PubMed:16415881). Monomethylates 'Lys-491' of CGAS, promoting interaction between SGF29 and CGAS (By similarity). {ECO:0000250|UniProtKB:Q8VHL1, ECO:0000269|PubMed:11779497, ECO:0000269|PubMed:11850410, ECO:0000269|PubMed:12540855, ECO:0000269|PubMed:12588998, ECO:0000269|PubMed:15099517, ECO:0000269|PubMed:15525938, ECO:0000269|PubMed:16141209, ECO:0000269|PubMed:16415881, ECO:0000269|PubMed:17108971, ECO:0000269|PubMed:35210392}.

Molecular Weight: 40.7 kDa

UniProt: [Q8WTS6](#)

## 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.

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Application Details

modifications.

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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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months