

Datasheet for ABIN3094574

## PHF1 Protein (AA 1-567) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	PHF1
Protein Characteristics:	AA 1-567
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHF1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MAQPPRLSRS GASSLWDPAS PAPTSGPRPR LWEGQDVLAR WTDGLLYLGT IKKVDSAREV            CLVQFEDDSQ FLVLWKDISP AALPGEELLC CVCRSETVVP GNRLVSCEKC RHAYHQDCHV            PRAPAPGEGE GTSWVCRQCV FAIATKRGGG LKKGPYARAM LGMKLSLPYG LKGLDWDAGH            LSNRQSYCY CGGPGEWNLK MLQCRSCLQW FHEACTQCLS KPLLYGDRFY EFECCVCRGG            PEKVRRLQLR WVDVAHLVLY HLSVCCKKKY FDFDREILPF TSENWDSLLL GELS DTPKGE            RSSRLLSALN SHKDRFISGR EIKKRKCLFG LHARMPPPVE PPTGDGALTS FPSGQGPGGG            VSRPLGKRRR PEPEPLRRRQ KGKVEELGPP SAVRNQPEPQ EQRERAHLQR ALQASVSPPS            PSPNQSYQGS SGYNFRPTDA RCLPSSPIRM FASFHPSAST AGTSGDSGPP DRSPLELHIG            FPTDIPKSAP HSMTASSSSV SSPSPGLPRR SAPPSPLCRS LSPGTGGGVR GGVGYLSRGD            PVRVLARRVR PDGSVQYLVE WGGGGIF</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.**

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### 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 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.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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### Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

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### Grade:

custom-made

## Target Details

Target:	PHF1
Alternative Name:	PHF1 ( <a href="#">PHF1 Products</a> )
Background:	<p>PHD finger protein 1 (Protein PHF1) (hPHF1) (Polycomb-like protein 1) (hPCI1),FUNCTION: Polycomb group (PcG) that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex. Involved in DNA damage response and is recruited at double-strand breaks (DSBs). Acts by binding to H3K36me3, a mark for transcriptional activation, and recruiting the PRC2 complex: it is however unclear whether recruitment of the PRC2 complex to H3K36me3 leads to enhance or inhibit H3K27me3 methylation mediated by the PRC2 complex. According to some reports, PRC2 recruitment by PHF1 promotes H3K27me3 and subsequent gene silencing by inducing spreading of PRC2 and H3K27me3 into H3K36me3 loci (PubMed:18285464, PubMed:23273982). According to another report, PHF1 recruits the PRC2 complex at double-strand breaks (DSBs) and inhibits the activity of PRC2 (PubMed:23142980). Regulates p53/TP53 stability and prolongs its turnover: may act by specifically binding to a methylated form of p53/TP53. {ECO:0000269 PubMed:18086877, ECO:0000269 PubMed:18285464, ECO:0000269 PubMed:18385154, ECO:0000269 PubMed:23142980, ECO:0000269 PubMed:23150668, ECO:0000269 PubMed:23273982}.</p>
Molecular Weight:	62.1 kDa
UniProt:	<a href="#">O43189</a>

## 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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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</p>

Application Details

	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 <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