

Datasheet for ABIN3094532 PHF8 Protein (AA 1-1060) (His tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	PHF8
Protein Characteristics:	AA 1-1060
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHF8 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>MNRSRAIVQR GRVLPPAPL DTTNLAGRRT LQGRAKMASV PVYCLCRLPY DVTRFMIECD</p> <p>MCQDWFHGSC VGVEEKAAD IDLYHCPNCE VLHGPSIMKK RRGSSKGHDT HKGKPVKTGS</p> <p>PTFVRELRSR TFDSSDEVIL KPTGNQLTVE FLEENSFSVP ILVLKKGDLG MTLSPSPFTV</p> <p>RDVEHYVGSD KEIDVIDVTR QADCKMKLGD FVKYYYSGKR EKVLNVISLE FSDTRLNLV</p> <p>ETPKIVRKLS WVENLWPEEC VFERPNVQKY CLMSVRDSYT DFHIDFGGTS VWYHVLKGEK</p> <p>IFYLIRPTNA NLTLFECWSS SSNQNMFFG DQVDKCYKCS VKQGQTLFIP TGWIHAVLTP</p> <p>VDCLAFGGNF LHSLNIEMQL KAYEIEKRLS TADLFRFPNF ETICWYVGKH ILDIFRGLRE</p> <p>NRRHPASYLV HGGKALNLAF RAWTRKEALP DHEDEIPETV RTVQLIKDLA REIRLVEDIF</p> <p>QQNVGKTSNI FGLQRIFPAG SIPLTRPAHS TSVSMSRLSL PSKNGSKKKG LKPKELFKKA</p> <p>ERKGKESAL GPAGQLSYNL MDTYSHQALK TGSFQKAKFN ITGACLNDSDDSPDLDLDG</p> <p>NESPLALLMS NGSTKRVKSL SKSRRTKIAK KVDKARLMAE QVMEDEFDLD SDELQIDER</p> <p>LGKEKATLII RPKFPRKLPR AKPCSDPNRV REPGEVEFDI EEDYTTDED MVEGVEGKLG</p>
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GSGAGGILDL LKASRVGGP DYAAALTEAPA SPSTQEAIQG MLCMANLQSS SSSPATSSLQ
AWWTGGQDRS SGSSSSGLGT VSNPASQRT PGKRPIKRPA YWRTESEEEE ENASLDEQDS
LGACFKDAEY IYPSLESDDD DPALKSRPKK KKNSDAPWS PKARVTPTLP KQDRPVREGT
RVASITGLA AAAAKLAQQE LQKAQKKKYI KKKPLLKEVE QPRPQDSNLS LTVPAPTVA
TPQLVTSSSP LPPPEPKQEA LSGSLADHEY TARPNAFGMA QANRSTTPMA PGVFLTQRRP
SVGSQSNQAG QGKRPKKGLA TAKQRLGRIL KIHNRNGKLLL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human PHF8 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
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.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	PHF8
Alternative Name:	PHF8 (PHF8 Products)
Background:	<p>Histone lysine demethylase with selectivity for the di- and monomethyl states that plays a key role cell cycle progression, rDNA transcription and brain development. Demethylates mono- and dimethylated histone H3 'Lys-9' residue (H3K9Me1 and H3K9Me2), dimethylated H3 'Lys-27' (H3K27Me2) and monomethylated histone H4 'Lys-20' residue (H4K20Me1). Acts as a transcription activator as H3K9Me1, H3K9Me2, H3K27Me2 and H4K20Me1 are epigenetic repressive marks. Involved in cell cycle progression by being required to control G1-S transition. Acts as a coactivator of rDNA transcription, by activating polymerase I (pol I) mediated transcription of rRNA genes. Required for brain development, probably by regulating expression of neuron-specific genes. Only has activity toward H4K20Me1 when nucleosome is used as a substrate and when not histone octamer is used as substrate. May also have weak activity toward dimethylated H3 'Lys-36' (H3K36Me2), however, the relevance of this result remains unsure in vivo. Specifically binds trimethylated 'Lys-4' of histone H3 (H3K4me3), affecting histone demethylase specificity: has weak activity toward H3K9Me2 in absence of H3K4me3, while it has high activity toward H3K9me2 when binding H3K4me3.</p> <p>{ECO:0000269 PubMed:19843542, ECO:0000269 PubMed:20023638, ECO:0000269 PubMed:20101266, ECO:0000269 PubMed:20208542, ECO:0000269 PubMed:20346720, ECO:0000269 PubMed:20421419, ECO:0000269 PubMed:20531378, ECO:0000269 PubMed:20548336, ECO:0000269 PubMed:20622853, ECO:0000269 PubMed:20622854}.</p>
Molecular Weight:	118.8 kDa Including tag.
UniProt:	Q9UPP1

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process