

Datasheet for ABIN3126269  
**ALKBH3 Protein (AA 1-286) (His tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	ALKBH3
Protein Characteristics:	AA 1-286
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALKBH3 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence: MEDKRQRARV QGGWATPTKS QSATQPASPA RSRLSQTAGP AWRSKEQQQC DRQFVFKEPQ  
LVVRAAPEPR VIDREGVYEI SLSPTGVS RV CLYPGFVDLK EADWILEQLC KDVPWKQRMG  
IREDVTYPQP RLTAWYGELP YTYSRITMEP NPHWLPVLWT LKSRIEENTS HTFNLLCNF  
YRDEKDSVDW HSDDEPSLGS CPVIASLSFG ATRTFEMRKK PPPENGDYT YVERVKIPLD  
HGTLLIMEGA TQADWQHRVP KEYHSRQPRV NLTFRTVYPD PRGAPR

**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.
  - Mouse Alkbh3 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

## Product Details

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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.

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Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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

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Target:	ALKBH3
Alternative Name:	Alkbh3 ( <a href="#">ALKBH3 Products</a> )
Background:	Dioxygenase that mediates demethylation of DNA and RNA containing 1-methyladenosine (m1A) (By similarity). Repairs alkylated DNA containing 1-methyladenosine (m1A) and 3-

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## Target Details

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methylcytosine (m3C) by oxidative demethylation (PubMed:16174769). Has a strong preference for single-stranded DNA (PubMed:16174769). Able to process alkylated m3C within double-stranded regions via its interaction with ASCC3, which promotes DNA unwinding to generate single-stranded substrate needed for ALKHB3. Also acts on RNA. Demethylates N(1)-methyladenosine (m1A) RNA, an epigenetic internal modification of messenger RNAs (mRNAs) highly enriched within 5'-untranslated regions (UTRs) and in the vicinity of start codons. Requires molecular oxygen, alpha-ketoglutarate and iron (By similarity). {ECO:0000250|UniProtKB:Q96Q83, ECO:0000269|PubMed:16174769}.

Molecular Weight: 34.0 kDa Including tag.

UniProt: [Q8K1E6](#)

Pathways: [DNA Damage Repair](#)

## Application Details

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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: Protein has not been tested for activity yet. 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

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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)



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