

## Datasheet for ABIN3093226 KAT5 Protein (AA 1-513) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	KAT5
Protein Characteristics:	AA 1-513
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KAT5 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

#### Product Details

Sequence: MAEVGEIIEG CRLPVLRRNQ DNEDEWPLAE ILSVKDISGR KLFYVHYIDF NKRLDEWVTH  
ERLDLKKIQF PKKEAKTPTK NGLPGSRPGS PEREVPASQA ASGKTLPIPV QITLRFNLPK  
EREAI PGGE P DQPLSSSSCL QPNHRSTKRK VEVVSPATPV PSETAPASVF PQNGAARRAV  
AAQGRKRKS NCLGTDEDSQ DSSDGIPSAP RMTGSLVSDR SHDDIVTRMK NIECIELGRH  
RLKPWFYSPY PQELTTLPVL YLCEFCCLKYG RSLKCLQRHL TKCDLRHPPG NEIYRKG TIS  
FFEIDGRKNK SYSQNLCLLA KCFLDHKTLY YDTPFLFYV MTEYDCKGFH IVGYFSKEKE  
STEDYNVACI LTLPPYQRRG YGKLLIEFSY ELSKVEGKTG TPEKPLSDLG LLSYRSYWSQ  
TILEILMGLK SESGERPQIT INEISEITSI KKEDVISTLQ YLNLINYYKG QYILTSEDI VDGHERAMLK  
RLLRIDSKCL HFTPKDWSKR GKW

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

## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human KAT5 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.

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:	KAT5
Alternative Name:	KAT5 ( <a href="#">KAT5 Products</a> )
Background:	<p>Catalytic subunit of the NuA4 histone acetyltransferase complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A. This modification may both alter nucleosome-DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage. Directly acetylates and activates ATM. Component of a SWR1-like complex that specifically mediates the removal of histone H2A.Z/H2AFZ from the nucleosome. In case of HIV-1 infection, interaction with the viral Tat protein leads to KAT5 polyubiquitination and targets it to degradation. Relieves NR1D2-mediated inhibition of APOC3 expression by acetylating NR1D2. Promotes FOXP3 acetylation and positively regulates its transcriptional repressor activity (PubMed:17360565). {ECO:0000269 PubMed:12776177, ECO:0000269 PubMed:14966270, ECO:0000269 PubMed:15042092, ECO:0000269 PubMed:15121871, ECO:0000269 PubMed:15310756, ECO:0000269 PubMed:16141325, ECO:0000269 PubMed:16387653, ECO:0000269 PubMed:17360565, ECO:0000269 PubMed:17996965, ECO:0000269 PubMed:19909775, ECO:0000269 PubMed:24463511}.</p>
Molecular Weight:	59.5 kDa Including tag.
UniProt:	<a href="#">Q92993</a>
Pathways:	<a href="#">Intracellular Steroid Hormone Receptor Signaling Pathway</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:	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.

## Application Details

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