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## SET/TAF-I Protein (AA 2-290) (His tag)



#### Overview

Quantity:	1 mg
Target:	SET/TAF-I (SET)
Protein Characteristics:	AA 2-290
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SET/TAF-I protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)
Product Details	
Sequence:	APKRQSPLPP QKKKPRPPPA LGPEETSASA GLPKKGEKEQ QEAIEHIDEV QNEIDRLNEQ
	ASEEILKVEQ KYNKLRQPFF QKRSELIAKI PNFWVTTFVN HPQVSALLGE EDEEALHYLT
	RVEVTEFEDI KSGYRIDFYF DENPYFENKV LSKEFHLNES GDPSSKSTEI KWKSGKDLTK
	RSSQTQNKAS RKRQHEEPES FFTWFTDHSD AGADELGEVI KDDIWPNPLQ YYLVPDMDDE
	EGEGEEDDDD DEEEEGLEDI DEEGDEDEGE EDEDDDEGEE GEEDEGEDD
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Human SET Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	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 receival 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 bacterial culture:

- 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.
- 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:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### Target Details

Target:	SET/TAF-I (SET)
Alternative Name:	SET (SET Products)
Background:	Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone
	chaperoning. Isoform 2 anti-apoptotic activity is mediated by inhibition of the GZMA-activated

DNase, NME1. In the course of cytotoxic T-lymphocyte (CTL)-induced apoptosis, GZMA cleaves
SET, disrupting its binding to NME1 and releasing NME1 inhibition. Isoform 1 and isoform 2 are
potent inhibitors of protein phosphatase 2A. Isoform 1 and isoform 2 inhibit EP300/CREBBP
and PCAF-mediated acetylation of histones (HAT) and nucleosomes, most probably by
masking the accessibility of lysines of histones to the acetylases. The predominant target for
inhibition is histone H4. HAT inhibition leads to silencing of HAT-dependent transcription and
prevents active demethylation of DNA. Both isoforms stimulate DNA replication of the
adenovirus genome complexed with viral core proteins, however, isoform 2 specific activity is
higher. {ECO:0000269 PubMed:11555662, ECO:0000269 PubMed:12628186}.

Molecular Weight:	34.3 kDa Including tag.
UniProt:	Q01105
Pathways:	Apoptosis

## **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 gurantee
	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)