

Datasheet for ABIN3134759

## YY1 Protein (AA 1-414) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	YY1
Protein Characteristics:	AA 1-414
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This YY1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence: MASGDTLYIA TDGSEMPAEI VELHEIEVET IPVETIETTV VGEEEEEDDD DEDGGGGDHDG  
 GGGGGHGHAG HHHHHHHHHH HHPPIALQP LVTDDPTQVH HHQEVLVQT REEVVGGDDS  
 DGLRAEDGFE DQILIPVPAP AGGDDDYIEQ TLVTAAAGK SGGGASSGGG RVKKGGGKKS  
 GKSYLGGA GAAGGGGADP GNKKWEQKQV QIKTLEGEFS VTMWSSDEKK DIDHETVVEE  
 QIIGENSPPD YSEYMTGKKL PPGGIPGIDL SDPKQLAEFA RMKPRKIKED DAPRTIACPH  
 KGCTKMFRDN SAMRKHLHTH GPRVHVCAEC GKAFVESSKL KRHLVHTGE KPFQCTFEGC  
 GKRFSLDFNL RTHVRIHTGD RPYVCPFDGC NKKFAQSTNL KSHILTHAKA KNNQ

**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 Yy1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

## Product Details

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- 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

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Target:	YY1
Alternative Name:	Yy1 ( <a href="#">YY1 Products</a> )

## Target Details

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Background:	<p>Multifunctional transcription factor that exhibits positive and negative control on a large number of cellular and viral genes by binding to sites overlapping the transcription start site. Binds to the consensus sequence 5'-CCGCCATNTT-3', some genes have been shown to contain a longer binding motif allowing enhanced binding, the initial CG dinucleotide can be methylated greatly reducing the binding affinity. The effect on transcription regulation is depending upon the context in which it binds and diverse mechanisms of action include direct activation or repression, indirect activation or repression via cofactor recruitment, or activation or repression by disruption of binding sites or conformational DNA changes. Its activity is regulated by transcription factors and cytoplasmic proteins that have been shown to abrogate or completely inhibit YY1-mediated activation or repression. Binds to the upstream conserved region (UCR) (5'-CGCCATTTT-3') of Moloney murine leukemia virus (MuLV). Acts synergistically with the SMAD1 and SMAD4 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:15329343). Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (PubMed:15329343). Proposed to recruit the PRC2/EED-EZH2 complex to target genes that are transcriptional repressed. Involved in DNA repair. In vitro, binds to DNA recombination intermediate structures (Holliday junctions). Involved in spermatogenesis and may play a role in meiotic DNA double-strand break repair. {ECO:0000269 PubMed:15329343, ECO:0000269 PubMed:18026119, ECO:0000269 PubMed:19786570}., Proposed core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair, proposed to target the INO80 complex to YY1-responsive elements. {ECO:0000250}.</p>
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Molecular Weight:	45.7 kDa Including tag.
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UniProt:	<a href="#">Q00899</a>
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## 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.
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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.
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Restrictions:	For Research Use only
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## 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