

## Datasheet for ABIN3136236 MICAL2 Protein (AA 1-960) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	MICAL2
Protein Characteristics:	AA 1-960
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MICAL2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

#### Product Details

Sequence:	<p>MGENEDEKQA QASQVFENFV QATTCKGTLQ AFNILTCLLD LDPLDHRNFY SQLKSKVNTW</p> <p>KAKALWHKLD KRGSHKEYKR GKACSNKCL IVGGGPCGLR TAIELAYLGA KVVVVEKRD</p> <p>FSRNNVLHLW PFTIHLRGL GAKKFYKFC AGSIDHISIR QLQLILFKVA LMLGVEVHV</p> <p>VEFVRVLEPP EDQENQKVGW RAEFLPADHA LSDFEFDVII GADGHRNTLE GFRRKEFRGK</p> <p>LAIITANFI NRNSTAEAKV EEISGVAFIF NQKFFQDLKE ETGIDLENIV YYKDSTHYFV</p> <p>MTAKKQSLLD KGVILNDYID TEMLLCSENV NQDNLLSYAR EAADFATNYQ LPSLDFAINH</p> <p>NGQPDVAMFD FTSMYASENA ALMRERQAHQ LLVALVGDSL LEFPWPMGTG CARGFLAAFD</p> <p>TAWMVKSWDQ GTPPLEVLAE RESLYRLLPQ TTPENINKNF EQYTLDPATR YPNLNLHCVR</p> <p>PHQVKHLYIT KEMDRFPLER WGSVRRSVSL SRRESDIRPN KLLTWCQQQT KGYQHVRVTD</p> <p>LTTSWRSGLA LCAIHSFRP ELINFDSLNE DDAVENNQLA FDVAKREFGI LPVTTGKEMA</p> <p>STQEPDKLSM VMYLSKFYEL FRGTPLRPMD SWRKNYGENA DFGLGKTFIQ NNYLNLTLPR</p> <p>KRTPRVDTQT EENDMNKRRR QGFNHLEELP SFSSRSLGSS QEYAKESGSQ NKVKHMANQL</p>
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LAKFEENTRN PSVVKQESPR KAFPLSLGGR DTCYFCKKRV YMIERLSAEG HFFHQECFRC  
SVCSATLRLA AYAFDCDEGK FYCKPHFVHC KTSSKQRKRR AELNQQREEE GTWQEQEAPR  
RDVPTESSCA VAAISTPEGS PPGTSTSFFR KALSWPLRLT RGLLNLPQSL LRWMQGLQEA  
AGHHVRDNAH NYCFMFELLS LGLLLLWAFS KVLAAAMYRES EESLENIRSW LLRFIPVKLQ

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Mical2 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.

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### 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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## Product Details

Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

Target:	MICAL2
Alternative Name:	Mical2 ( <a href="#">MICAL2 Products</a> )
Background:	Nuclear monooxygenase that promotes depolymerization of F-actin by mediating oxidation of specific methionine residues on actin and regulates the SRF signaling. Acts by modifying nuclear actin subunits through the addition of oxygen to form methionine-sulfoxide, leading to promote actin filament severing and prevent repolymerization. Acts as a key regulator of the SRF signaling pathway elicited by nerve growth factor and serum: mediates oxidation and subsequent depolymerization of nuclear actin, leading to increase MKL1/MRTF-A presence in the nucleus and promote SRF:MKL1/MRTF-A-dependent gene transcription. Does not activate SRF:MKL1/MRTF-A through RhoA. {ECO:0000269 PubMed:23911929}.
Molecular Weight:	111.0 kDa Including tag.
UniProt:	<a href="#">Q8BML1</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:	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

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

## Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	Unlimited (if stored properly)
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## Images



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