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# **RUVBL2 Protein (AA 2-463) (His tag)**





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#### Overview

Quantity:	1 mg	
Target:	RUVBL2	
Protein Characteristics:	AA 2-463	
Origin:	Mouse	
Source:	Escherichia coli (E. coli)	
Protein Type:	Recombinant	
Purification tag / Conjugate:	This RUVBL2 protein is labelled with His tag.	
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)	

#### **Product Details**

### Sequence:

ATVAATTKVP EIRDVTRIER IGAHSHIRGL GLDDALEPRQ ASQGMVGQLA ARRAAGVVLE
MIREGKIAGR AVLIAGQPGT GKTAIAMGMA QALGPDTPFT AIAGSEIFSL EMSKTEALTQ
AFRRSIGVRI KEETEIIEGE VVEIQIDRPA TGTGSKVGKL TLKTTEMETI YDLGTKMIES
LTKDKVQAGD VITIDKATGK ISKLGRSFTR ARDYDAMGSQ TKFVQCPDGE LQKRKEVVHT
VSLHEIDVIN SRTQGFLALF SGDTGEIKSE VREQINAKVA EWREEGKAEI IPGVLFIDEV
HMLDIESFSF LNRALESDMA PVLIMATNRG ITRIRGTSYQ SPHGIPIDLL DRLLIVSTSP
YSEKDTKQIL RIRCEEEDVE MSEDAYTVLT RIGLETSLRY AIQLITAASL VCRKRKGTEV
QVDDIKRVYS LFLDESRSTQ YMKEYQDAFL FNELKGETMD TS

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 Ruvbl2 Protein (raised in E. Coli) 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 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:

- 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: RUVBL2

Alternative Name: Ruvbl2 (RUVBL2 Products)

Background:

Possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (5' to 3') activity, hexamerization is thought to be critical for ATP hydrolysis and adjacent subunits in the ring-like structure contribute to the ATPase activity. {ECO:0000250},, Component 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. The NuA4 complex ATPase and helicase activities seem to be, at least in part, contributed by the association of RUVBL1 and RUVBL2 with EP400. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage. Component of a SWR1-like complex that specifically mediates the removal of histone H2A.Z/H2AFZ from the nucleosome (By similarity). {ECO:0000250}., Proposed core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair. {ECO:0000250}., Plays an essential role in oncogenic transformation by MYC and also modulates transcriptional activation by the LEF1/TCF1-CTNNB1 complex. May also inhibit the transcriptional activity of ATF2 (By similarity). {ECO:0000250},, Involved in the endoplasmic reticulum (ER)-associated degradation (ERAD) pathway where it negatively regulates expression of ER stress response genes. {EC0:0000250|UniProtKB:Q9Y230}.

Molecular Weight:
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51.9 kDa Including tag.

UniProt:

09WTM5

Pathways:

Telomere Maintenance

## **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:

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.

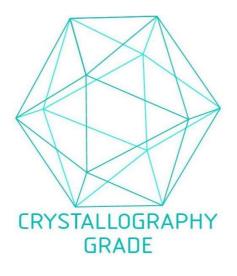
Restrictions:

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 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