# antibodies -online.com







# RAB13 Protein (AA 1-199) (His tag)



Image



Overview	
Quantity:	1 mg
Target:	RAB13
Protein Characteristics:	AA 1-199
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAB13 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)
Product Details	
Sequence:	MAKAYDHLFK LLLIGDSGVG KTCLIIRFAE DNFNSTYIST IGIDFKIRTV DIEGKRIKLQ
	VWDTAGQERF KTITTAYYRG AMGIILVYDI TDEKSFENIQ NWMKSIKENA SAGVERLLLG

, pp. reactor in	
Product Details	
Sequence:	MAKAYDHLFK LLLIGDSGVG KTCLIIRFAE DNFNSTYIST IGIDFKIRTV DIEGKRIKLQ VWDTAGQERF KTITTAYYRG AMGIILVYDI TDEKSFENIQ NWMKSIKENA SAGVERLLLG NKCDMEAKRQ VQREQAEKLA REHRIRFFET SAKSSVNVDE AFSSLARDIL LKTGGRRSGT NSKPSSTGLK TSDKKKNKC
	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>Mouse Rab13 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.
- 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:

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

Grade:

Crystallography grade

### **Target Details**

Target:	RAB13
Alternative Name:	Rab13 (RAB13 Products)
Background:	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the
	formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive
	GDP-bound form and an active GTP-bound form that is able to recruit to membranes different

sets of downstream effectors directly responsible for vesicle formation, movement, tethering		
and fusion. That Rab is involved in endocytic recycling and regulates the transport to the		
plasma membrane of transmembrane proteins like the tight junction protein OCLN/occludin.		
Thereby, it regulates the assembly and the activity of tight junctions. Moreover, it may also		
regulate tight junction assembly by activating the PKA signaling pathway and by reorganizing		
the actin cytoskeleton through the activation of the downstream effectors PRKACA and		
MICALL2 respectively. Through its role in tight junction assembly, may play a role in the		
establishment of Sertoli cell barrier. Plays also a role in angiogenesis through regulation of		
endothelial cells chemotaxis. Also involved in neurite outgrowth. Has also been proposed to		
play a role in post-Golgi membrane trafficking from the TGN to the recycling endosome. Finally,		
it has been involved in insulin-induced transport to the plasma membrane of the glucose		
transporter GLUT4 and therefore may play a role in glucose homeostasis.		
{ECO:0000269 PubMed:21543326}.		

Molecular Weight:	23.4 kDa Including tag.
UniProt:	Q9DD03
Pathways:	Cell-Cell Junction Organization

# **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

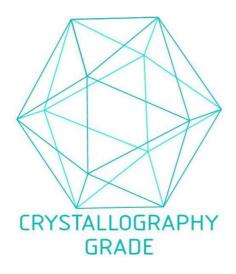
# Handling

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

# Handling

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