

Datasheet for ABIN3094852  
**RAB5 Protein (AA 1-215) (Strep Tag)**



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## Overview

Quantity:	1 mg
Target:	RAB5 (RAB5A)
Protein Characteristics:	AA 1-215
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAB5 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

## Product Details

Sequence:	MASRGATRPN GPNTGNKICQ FKLVLGESA VGKSSLVLRV VKGQFHEFQE STIGAAFLTQ TVCLDDTTVK FEIWDTAGQE RYHSLAPMY RGAQAIVVY DITNEESFAR AKNWVKELQR QASPNIVIAL SGNKADLANK RAVDFQEAQS YADDNSLLFM ETSAKTSMNV NEIFMAIAKK LPKNEPQNPG ANSARGRGVD LTEPTQPTRN QCCSN <b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b>
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Characteristics:	Key Benefits: <ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Protein expressed with ALiCE® and purified in one-step affinity chromatography</li><li>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).</li></ul>
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## 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 try to ensure that you receive soluble 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.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
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Purity:	> 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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## Target Details

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Target:	RAB5 (RAB5A)
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Alternative Name:	RAB5A ( <a href="#">RAB5A Products</a> )
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Background:	Ras-related protein Rab-5A (EC 3.6.5.2),FUNCTION: Small GTPase which cycles between active GTP-bound and inactive GDP-bound states. In its active state, binds to a variety of effector proteins to regulate cellular responses such as of intracellular membrane trafficking, from the
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## Target Details

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formation of transport vesicles to their fusion with membranes. Active GTP-bound form is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity). {ECO:0000250|UniProtKB:Q9CQD1, ECO:0000269|PubMed:10818110, ECO:0000269|PubMed:14617813, ECO:0000269|PubMed:14978216, ECO:0000269|PubMed:15378032, ECO:0000269|PubMed:16410077, ECO:0000269|PubMed:22660413}.

Molecular Weight: 23.7 kDa

UniProt: [P20339](#)

Pathways: [Smooth Muscle Cell Migration, Regulation of long-term Neuronal Synaptic Plasticity](#)

## 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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Restrictions: For Research Use only

## Handling

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Format: Liquid

## Handling

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Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)