

Datasheet for ABIN3095158

## RUSC1 Protein (AA 1-902) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	RUSC1
Protein Characteristics:	AA 1-902
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RUSC1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MLSPQRALLC NLNHIHLQHV SLGLHLSRRP ELQEGPLSTP PPPGDTGGKE SRGPCSGTLV</p> <p>DANSNSPAVP CRCCQEHGPG LENRQDPSQE EEGAASPSDP GCSSSLSSCS DLSPDESPVS</p> <p>VYLRDLPGDE DAHPQPSIIP LEQGSPLASA GPGTCSPDSF CCSPDSCSGA SSSPDPLDLS</p> <p>NCNALTTCQD VPSPGLEEED ERAEQDLPTS ELLEADDGKI DAGKTEPSWK INPIWKIDTE</p> <p>KTKAEWKTE NNNTGWKNNG NVNSSWKSEP EKFD SGWKTN TRITDSGSKT DAGKIDGGWR</p> <p>SDVSEEPVPH RTITSFHELA QKRKRGPGLP LVPQAKKDRS DWLIVFSPDT ELPPSGSPGG</p> <p>SSAPPREVTT FKELRSRSRA PAPPVPPRDP PVGWALVPPR PPPPPVPPRR KKNRPGLQPI</p> <p>AEGQSEEGRA VSPAAGEEAP AAKEPGAQAG LEVRSSWSFA GVPGAQRLWM AEAQSGTGQL</p> <p>QEQQKGLLIA VSVSVDKIIS HFGAARNLVQ KAQLGDSRLS PDVGHVLVLT LCPALHALVA</p> <p>DGLKPFKDL ITGQRRSPW SVVEASVKPG SSTRSLGTLY SQVSRLAPLS SSRSRFHAFI</p> <p>LGLLNTKQLE LWFSSLQEDA GLLSLLYLPT GFFSLARGGC PSLSTELLLL LQPLSVLTFH</p>

LDLLFEHHHH LPLGPPQAPA PPGPPPALQQ TMQAMLHFGG RLAQSLRGTS KEAASDPSPS  
PNLPTPGSWW EQLTQASRVY ASGGTEGFPL SRWAPGRHGT AAEEGAQERP LPTDEMAPGR  
GLWLGRLEFGV PGGPAENENG ALKSRRPSSW LPPTVSVLAL VKRGAPPEMP SPQELEASAP  
RMVQTHRAVR ALCDHHTAARP DQLSFRRGEV LRVITTVDED WLRCGRDGME GLVPVGYTSL VL

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

## Product Details

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: RUSC1

Alternative Name: RUSC1 ([RUSC1 Products](#))

Background: AP-4 complex accessory subunit RUSC1 (New molecule containing SH3 at the carboxy-terminus) (Nesca) (RUN and SH3 domain-containing protein 1),FUNCTION: Associates with the adapter-like complex 4 (AP-4) and may therefore play a role in vesicular trafficking of proteins at the trans-Golgi network (PubMed:30262884). Signaling adapter which plays a role in neuronal differentiation (PubMed:15024033). Involved in regulation of NGF-dependent neurite outgrowth (PubMed:15024033). May play a role in neuronal vesicular trafficking, specifically involving pre-synaptic membrane proteins (By similarity). Seems to be involved in signaling pathways that are regulated by the prolonged activation of MAPK (PubMed:15024033). Can regulate the polyubiquitination of IKBKG and thus may be involved in regulation of the NF-kappa-B pathway (PubMed:19365808). {ECO:0000250|UniProtKB:Q8BG26, ECO:0000269|PubMed:15024033, ECO:0000269|PubMed:19365808, ECO:0000269|PubMed:30262884}.

Molecular Weight: 96.4 kDa

UniProt: [Q9BVN2](#)

## 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: 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.

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Application Details

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Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months