

# Datasheet for ABIN3137456 FZR1 Protein (AA 1-493) (Strep Tag)



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Quantity:	250 μg
Target:	FZR1
Protein Characteristics:	AA 1-493
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FZR1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details	
Brand:	AliCE®
Sequence:	MDQDYERRLL RQIIIQNENT VPCVSEMRRT LTPANSPVSS PSKHGDRFIP SRAGANWSVN
	FHRINENEKS PSQNRKAKDA TSDNGKDGLA YSALLKNELL GAGIEKVQDP QTEDRRLQPS
	TPEHKGLFTY SLSSKRSSPD DGNDVSPYSL SPVSNKSQKL LRSPRKPTRK ISKIPFKVLD
	APELQDDFYL NLVDWSSLNV LSVGLGTCVY LWSACTSQVT RLCDLSVEGD SVTSVGWSER
	GNLVAVGTHK GFVQIWDAAA GKKLSMLEGH TARVGALAWN ADQLSSGSRD RMILQRDIRT
	PPLQSERRLQ GHRQEVCGLK WSTDHQLLAS GGNDNKLLVW NHSSLSPVQQ YTEHLAAVKA
	IAWSPHQHGL LASGGGTADR CIRFWNTLTG QPLQCIDTGS QVCNLAWSKH ANELVSTHGY
	SQNQILVWKY PSLTQVAKLT GHSYRVLYLA MSPDGEAIVT GAGDETLRFW NVFSKTRSTK
	ESVSVLNLFT RIR
	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.

#### 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 posttranslational 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.

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:	FZR1
Alternative Name:	Fzr1 (FZR1 Products)
Background:	Fizzy-related protein homolog (Fzr) (Cdh1/Hct1 homolog),FUNCTION: Substrate-specific
	adapter for the anaphase promoting complex/cyclosome (APC/C) E3 ubiquitin-protein ligase
	complex. Associates with the APC/C in late mitosis, in replacement of CDC20, and activates the
	APC/C during anaphase and telophase. The APC/C remains active in degrading substrates to
	ensure that positive regulators of the cell cycle do not accumulate prematurely. At the G1/S
	transition FZR1 is phosphorylated, leading to its dissociation from the APC/C. Following DNA
	damage, it is required for the G2 DNA damage checkpoint: its dephosphorylation and
	reassociation with the APC/C leads to the ubiquitination of PLK1, preventing entry into mitosis.
	Acts as an adapter for APC/C to target the DNA-end resection factor RBBP8/CtIP for
	ubiquitination and subsequent proteasomal degradation. Through the regulation of RBBP8/CtIP
	protein turnover, may play a role in DNA damage response, favoring DNA double-strand repair
	through error-prone non-homologous end joining (NHEJ) over error-free, RBBP8-mediated
	homologous recombination (HR). {ECO:0000250 UniProtKB:Q9UM11}.
Molecular Weight:	54.7 kDa
UniProt:	Q9R1K5
Pathways:	DNA Replication, Synthesis of DNA
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.
	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!

## **Application Details**

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 Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months