

Datasheet for ABIN3094951
RFX6 Protein (AA 1-928) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	RFX6
Protein Characteristics:	AA 1-928
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RFX6 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MAKVPELEDT FLQAQPAPQL SPGIQEDCCV QLLGKGLLVY PEETVYLAEE GQPGGEQGGG EKGEDPELPG AVKSEMHLNN GNFSSEEEEDA DNHDSKTKAA DQYLSQKKTI TQIVKDKKKQ TQLTLQWLEE NYIVCEGVCL PRCILYAHYL DFCRKEKLEP ACAATFGKTI RQKFPLLTTR RLGTRGHSKY HYYGIGIKES SAYYHSVYSG KGLTRFSGSK LKNEGGFTRK YSLSSKTGTL LPEFPSAQLH VYQGCISKDK VDTLIMMYKT HCQCILDNAI NGNFEEIQHF LLHFVWQMPD HLLPLENPV IIDIFCVCDS ILYKVLTDVL IPATMQEMPE SLLADIRNFA KNWEQWVSS LENLPEALTD KKIPIVRRFV SSLKRQTSFL HLAQIARPAL FDQHVNSMV SDIERVDLNS IGSQALLTIS GSTDTESGIY TEHDSITVFQ ELKDLLKNA TVEAFIEWLD TVVEQRVIKT SKQNGRSLKK RAQDFLLKWS FFGARVMHNL TLNASSFGS FHLIRMLLDE YILLAMETQF NNDKEQELQN LLDKYMKNSD ASKAAFTASP SSCFLANRNK GSMVSSDAVK NESHVETTYL PLPSSQPGGL GPALHQFPAG NTDNMPLTGQ MELSQIAGHL MTPPISPAMA SRGSVINQGP MAGRPPSVGP VLSAPSHCST YPEPIYPTLP QANHDFYSTS SNYQTVFRAQ PHSTSGLYPH</p>
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HTEHGRCMAW TEQQLSRDFF SGSCAGSPYN SRPPSSYGPS LQAQDSHNMQ FLNTGSFNFL
SNTGAASCQG ATLPPNSPNG YYGSNINYPE SHRLGSMVNQ HVSVISSIRS LPPYSDIHDP
LNILDDSGRK QTSSFYTDTS SPVACRTPVL ASSLQTPIPS SSSQCMYGTS NQYPAQETLD
SHGTSSREMV SSLPPINTVF MGTAAGGT

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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 in several dilutions and is measured against its specific reference buffer.

Product Details

- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	RFX6
Alternative Name:	RFX6 (RFX6 Products)
Background:	DNA-binding protein RFX6 (Regulatory factor X 6) (Regulatory factor X domain-containing protein 1),FUNCTION: Transcription factor required to direct islet cell differentiation during endocrine pancreas development. Specifically required for the differentiation of 4 of the 5 islet cell types and for the production of insulin (PubMed:20148032, PubMed:25497100). Not required for pancreatic PP (polypeptide-producing) cells differentiation. Acts downstream of NEUROG3 and regulates the transcription factors involved in beta-cell maturation and function, thereby restricting the expression of the beta-cell differentiation and specification genes, and thus the beta-cell fate choice. Activates transcription by forming a heterodimer with RFX3 and binding to the X-box in the promoter of target genes (PubMed:20148032). Involved in glucose-stimulated insulin secretion by promoting insulin and L-type calcium channel gene transcription (PubMed:25497100). {ECO:0000269 PubMed:20148032, ECO:0000269 PubMed:25497100}.
Molecular Weight:	102.5 kDa
UniProt:	Q8HWS3
Pathways:	Carbohydrate Homeostasis

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.

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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!

Restrictions: For Research Use only

Handling

Format: Liquid

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)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process