

Datasheet for ABIN3094745

PROX1 Protein (AA 1-737) (Strep Tag)**1** Image[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	PROX1
Protein Characteristics:	AA 1-737
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PROX1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence:	MPDHDSTALL SRQTKRRRVD IGVKRTVGTA SAFFAKARAT FFSAMNPQGS EQDVEYSVVQ HADGEKSNVL RKLLKRANSY EDAMMPFPGA TIISQLLKNN MNKNGGTEPS FQASGLSSTG SEVHQEDICS NSSRDSPEC LSPFGRPTMS QFDMRLCDE HLRAKRARVE NIIRGMHSHP SVALRGNENE REMAPQSVSP RESYRENKRK QKLPQQQQQS FQQLVSARKE QKREERRQLK QQLEDMQKQL RQLQEKFYQI YDSTDSENDE DGNLSEDSMR SEILDARAQD SVGRSDNEMC ELDPGGFIDR ARALIREQEM AENKPKREGN NKERDHGPNS LQPEGKHLAE TLKQELNTAM SQVVDTVVKV FSAKPSRQVP QVFPPLQIPQ ARFAVNGENH NFHTANQRLQ CFGDVIIPNP LDTFGNVQMA SSTDQTEALP LVVRKNSSDQ SASGPAAGGH HQPLHQSPLS ATTGFTTSTF RHPFPLPLMA YPFQSPLGAP SGSFSGKDRA SPESLDLTRD TTSRLTKMSS HHLSHHPCSP AHPSTAEGE SLSLIKSECG DLQDMSEISP YSGSAMQEGL SPNHLKKAKL MFFYTRYPS NMLKTYFSDV KFNRCITSQL IKWFSNFREF YYIQMEKYAR QAINDGVTST EELSITRDCE LYRALNMHYN KANDFEVPER FLEVAQITLR EFFNAIAGK DVDPSWKKAI YKVICKLDSE
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VPEIFKSPNC LQELLHE

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.
- 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

Product Details

(ALiCE®):

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:	PROX1
Alternative Name:	PROX1 (PROX1 Products)
Background:	Prospero homeobox protein 1 (Homeobox prospero-like protein PROX1) (PROX-1),FUNCTION: Transcription factor involved in developmental processes such as cell fate determination, gene transcriptional regulation and progenitor cell regulation in a number of organs. Plays a critical role in embryonic development and functions as a key regulatory protein in neurogenesis and the development of the heart, eye lens, liver, pancreas and the lymphatic system. Involved in the regulation of the circadian rhythm. Represses: transcription of the retinoid-related orphan receptor RORG, transcriptional activator activity of RORA and RORG and the expression of RORA/G-target genes including core clock components: BMAL1, NPAS2 and CRY1 and metabolic genes: AVPR1A and ELOVL3. {ECO:0000269 PubMed:23723244, ECO:0000303 PubMed:22733308}.
Molecular Weight:	83.2 kDa
UniProt:	Q92786
Pathways:	Stem Cell Maintenance , Regulation of Muscle Cell Differentiation

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

Application Details

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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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)

Images



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