

Datasheet for ABIN3134200

## PROX1 Protein (AA 1-737) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	PROX1
Protein Characteristics:	AA 1-737
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PROX1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

### Product Details

Brand:	AlIcE®
Sequence:	<p>MPDHDSTALL SRQTKRRRVD IGVKRTVGTA SAFFAKARAT FFSAMNPQGS EQDVEYSVVQ</p> <p>HADGEKSNVL RKLLKRANSY EDAMMPFPGA TIISQLLKNN MNKNGGTEPS FQASGLSSTG</p> <p>SEVHQEDICS NSSRDSPEEC LSPFGRPTMS QFDVDRLCDE HLRAKRARVE NIIRGMSHSP</p> <p>SVALRGNENE REMAPQSVSP RESYRENKRK QKLPQQQQQS FQQLVSARKE QKREERRQLK</p> <p>QQLEDMQKQL RQLQEKFYQV YDSTDSENDE DGDLSEDSMR SEILDARAQD SVGRSDNEMC</p> <p>ELDPGQFIDR ARALIREQEM AENKPKREGS NKERDHGPNS LQPEGKHLAE TLKQELNTAM</p> <p>SQVVDTVVKV FSAKPSRQVP QVFPPLQIPQ ARFAVNGENH NFHTANQRLQ CFGDVIIPNP</p> <p>LDTFGSVQMP SSTDQTEALP LVVRKNSSEQ SASGPATGGH HQPLHQSPLS ATAGFTTPSF</p> <p>RHPFPLPLMA YPFQSPLGAP SGSFSGKDRA SPESLDLTRD TTS LR TKMSS HHLSHHPCSP</p> <p>AHPPSTA EGL SLSLIKSECG DLQDMSDISP YSGSAMQEGL SPNHLKKAKL MFFYTRYPS</p> <p>NMLKTYFSDV KFNRCITSQL IKWFSNFREF YYIQMEKYAR QAINDGVTST EELSITRDCE</p>

LYRALNMHYN KANDFEVPER FLEVAQITLR EFFNAILIAGK DVDPSWKKAI YKVICKLDSE  
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.**

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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.

### Purification:

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

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## Product Details

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

Grade: custom-made

## 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: 83.1 kDa

UniProt: [P48437](#)

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.

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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 **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