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Datasheet for ABIN3121369

## ASCL1 Protein (AA 1-231) (Strep Tag)

### Overview

Quantity:	1 mg
Target:	ASCL1
Protein Characteristics:	AA 1-231
Origin:	Mouse
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This ASCL1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence: MESSGKMESG AGQQPQQPPQP FLPPAACFFA TAAAAAAAAA AAAQSAQQQQ PQAPPQQAPQ  
LSPVADSQPS GGGHKSAKQ VKRQRSSSPE LMRCKRRLNF SGFGYSLPQQ QPAAVARRNE  
RERNRVKLVN LGFATLREHV PNGAANKKMS KVETLRSVAE YIRALQQLLD EHDVSAAFQ  
AGVLSPTISP NYSNDLNSMA GSPVSSYSSD EGSYDPLSPE EQELLDFTNW F

**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.

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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)

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## Target Details

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Target:	ASCL1
Alternative Name:	Ascl1 ( <a href="#">ASCL1 Products</a> )
Background:	<p>Achaete-scute homolog 1 (ASH-1) (mASH-1) (mASH1),FUNCTION: Transcription factor that plays a key role in neuronal differentiation: acts as a pioneer transcription factor, accessing closed chromatin to allow other factors to bind and activate neural pathways (PubMed:24243019). Directly binds the E box motif (5'-CANNTG-3') on promoters and promotes transcription of neuronal genes (PubMed:20107439, PubMed:24243019, PubMed:27281220). The combination of three transcription factors, ASCL1, POU3F2/BRN2 and MYT1L, is sufficient to reprogram fibroblasts and other somatic cells into induced neuronal (iN) cells in vitro (PubMed:20107439, PubMed:24243019, PubMed:27281220). Plays a role at early stages of development of specific neural lineages in most regions of the CNS, and of several lineages in the PNS (PubMed:8217843). Essential for the generation of olfactory and autonomic neurons (PubMed:8221886). Acts synergistically with FOXN4 to specify the identity of V2b neurons rather than V2a from bipotential p2 progenitors during spinal cord neurogenesis, probably through DLL4-NOTCH signaling activation (PubMed:16020526, PubMed:17728344). Involved in the regulation of neuroendocrine cell development in the glandular stomach (PubMed:18173746). {ECO:0000269 PubMed:16020526, ECO:0000269 PubMed:17728344, ECO:0000269 PubMed:18173746, ECO:0000269 PubMed:20107439, ECO:0000269 PubMed:24243019, ECO:0000269 PubMed:27281220, ECO:0000269 PubMed:8217843, ECO:0000269 PubMed:8221886}.</p>
Molecular Weight:	24.7 kDa
UniProt:	<a href="#">Q02067</a>
Pathways:	<a href="#">Dopaminergic Neurogenesis</a>

## Application Details

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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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>During lysate production, the cell wall and other cellular components that are not required for</p>

## Application Details

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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!

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Restrictions: For Research Use only

## Handling

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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)