Datasheet for ABIN3136252

# NHLRC1 Protein (AA 1-401) (Strep Tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | NHLRC1 |
| Protein Characteristics: | AA 1-401 |
| Origin: | Mouse |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This NHLRC1 protein is labelled with Strep Tag. |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MGEEATAVAA AGVRPELVRE AEVSLLECKV CFERFGHWQQ RRPRNLPCGH VVCLACVAAL AHPRTLGLEC PFCRRACRAC DTSDCLPVLH LLELLGSTLH ASPAALSAAP FAPGTLTCYH AFGGWGTLVN PTGLALCPKT GRVVVVHDGK RRVKIFDSGG GGAHQFGEKG DAAHDVKYPL DVAVTNDCHV VVTDAGDCSL KVFDFFGQIK LVVGKQFSLP WGVEITPHNG VLVTDAEAGT LHLLEADFPE GVLRRIERLQ AHLCSPRGLA VSWLTGAIAV LEHPCAFGRT GCNNTRVKVF NSTMQLIGQV DSFGLNLLFP SKVTASAVTF DHQGNVIVAD TSGPAIVCLG KPEEFPALKP IITHGLSRPV ALAFTKENSL LVLDTASHSI KVFKVMEGNG G<br>**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: |

## Product Details

- 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.

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| 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

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| Target: | NHLRC1 |

## Target Details

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| Alternative Name: | Nhlrc1 (NHLRC1 Products) |
| Background: | E3 ubiquitin-protein ligase NHLRC1 (EC 2.3.2.27) (Malin) (NHL repeat-containing protein 1) (RING-type E3 ubiquitin transferase NHLRC1),FUNCTION: E3 ubiquitin-protein ligase. Together with the phosphatase EPM2A/laforin, appears to be involved in the clearance of toxic polyglucosan and protein aggregates via multiple pathways. In complex with EPM2A/laforin and HSP70, suppresses the cellular toxicity of misfolded proteins by promoting their degradation through the ubiquitin-proteasome system (UPS). Ubiquitinates the glycogen-targeting protein phosphatase subunits PPP1R3C/PTG and PPP1R3D in a laforin-dependent manner and targets them for proteasome-dependent degradation, thus decreasing glycogen accumulation. Polyubiquitinates EPM2A/laforin and ubiquitinates AGL and targets them for proteasome-dependent degradation. Also promotes proteasome-independent protein degradation through the macroautophagy pathway. {ECO:0000269\|PubMed:19036738, ECO:0000269\|PubMed:21077101, ECO:0000269\|PubMed:22186026, ECO:0000269\|PubMed:22669944}. |
| Molecular Weight: | 42.7 kDa |
| UniProt: | Q8BR37 |

## 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: | 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.<br>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

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer.<br>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 |