



[Go to Product page](#)

Datasheet for ABIN3093749

## Merlin Protein (AA 1-595) (Strep Tag)

### Overview

Quantity:	1 mg
Target:	Merlin (NF2)
Protein Characteristics:	AA 1-595
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Merlin protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Sequence: MAGAIASRMS FSSLKRKQPK TFTVRIVTMD AEMEFNCEMK WKGKDLFDLV CRTLGLRETW  
FFGLQYTIKD TVAWLKMDKK VLDHDVSKEE PVTFHFLAKF YPENAEELV QEITQHLFFL  
QVKKQILDEK IYCPPEASVL LASYAVQAKY GDYDPSVHKR GFLAQEELLP KRVINLYQMT  
PEMWEERITA WYAEHRGRAR DEAMEYLKI AQDLEMYGVN YFAIRNKKGT ELLLGVDALG  
LHIYDPENRL TPKISFPWNE IRNISYSKE FTIKPLDKKI DVKFNSSKL RVNKLILQLC  
IGNHDLFMRR RKADSLEVQQ MKAQAREEKA RKQMERQLA REKQMREEAE RTRDELERRL  
LQMKEEATMA NEALMRSEET ADLLAEKAQI TEEAKLLAQ KAAEAQEMQ RIKATAIRTE  
EEKRLMEQKV LEAEVLALKM AEEERRAKE ADQLKQDLQE AREAERRAKQ KLEIATKPT  
YPPMNPAP LPPDIPSNL IGDSLDFDK DTMKRLSME IEKEKVEYME KSKHLQEQLN  
ELKTEIEALK LKERETALDI LHNENSDRGG SSKHNTIKKL TLQSAKSRVA FFEEL

**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 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®):

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.

## Product Details

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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

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Target: Merlin (NF2)

Alternative Name: NF2 ([NF2 Products](#))

Background: Merlin (Moesin-ezrin-radixin-like protein) (Neurofibromin-2) (Schwannomerlin) (Schwannomin),FUNCTION: Probable regulator of the Hippo/SWH (Sav/Wts/Hpo) signaling pathway, a signaling pathway that plays a pivotal role in tumor suppression by restricting proliferation and promoting apoptosis. Along with WWC1 can synergistically induce the phosphorylation of LATS1 and LATS2 and can probably function in the regulation of the Hippo/SWH (Sav/Wts/Hpo) signaling pathway. May act as a membrane stabilizing protein. May inhibit PI3 kinase by binding to AGAP2 and impairing its stimulating activity. Suppresses cell proliferation and tumorigenesis by inhibiting the CUL4A-RBX1-DDB1-VprBP/DCAF1 E3 ubiquitin-protein ligase complex. {ECO:0000269|PubMed:20159598, ECO:0000269|PubMed:20178741, ECO:0000269|PubMed:21167305}.

Molecular Weight: 69.7 kDa

UniProt: [P35240](#)

Pathways: [Cell-Cell Junction Organization](#)

## 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.

## Application Details

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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!

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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)