Datasheet for ABIN3088593

# AGO4 Protein (AA 1-861) (Strep Tag)

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## Overview

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|---|---|
| Quantity: | 250 µg |
| Target: | AGO4 (EIF2C4) |
| Protein Characteristics: | AA 1-861 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This AGO4 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MEALGPGPPA SLFQPPRRPG LGTVGKPIRL LANHFQVQIP KIDVYHYDVD IKPEKRPRRV NREVVDTMVR HFKMQIFGDR QPGYDGKRNM YTAHPLPIGR DRVDMEVTLP GEGKDQTFKV SVQWVSVVSL QLLLEALAGH LNEVPDDSVQ ALDVITRHLP SMRYTPVGRS FFSPPEGYYH PLGGGREVWF GFHQSVRPAM WNMMLNIDVS ATAFYRAQPI IEFMCEVLDI QNINEQTKPL TDSQRVKFTK EIRGLKVEVT HCGQMKRKYR VCNVTRRPAS HQTFPLQLEN GQAMECTVAQ YFKQKYSLQL KYPHLPCLQV GQEQKHTYLP LEVCNIVAGQ RCIKKLTDNQ TSTMIKATAR SAPDRQEEIS RLVKSNSMVG GPDPYLKEFG IVVHNEMTEL TGRVLPAPML QYGGRNKTVA TPNQGVWDMR GKQFYAGIEI KVWAVACFAP QKQCREDLLK SFTDQLRKIS KDAGMPIQGQ PCFCKYAQGA DSVEPMFKHL KMTYVGLQLI VVILPGKTPV YAEVKRVGDT LLGMATQCVQ VKNVVKTSPQ TLSNLCLKIN AKLGGINNVL VPHQRPSVFQ QPVIFLGADV THPPAGDGKK PSIAAVVGSM DGHPSRYCAT VRVQTSRQEI SQELLYSQEV IQDLTNMVRE LLIQFYKSTR |

FKPTRIIYYR GGVSEGQMKQ VAWPELIAIR KACISLEEDY RPGITYIVVQ KRHHTRLFCA DKTERVGKSG NVPAGTTVDS TITHPSEFDF YLCSHAGIQG TSRPSHYQVL WDDNCFTADE LQLLTYQLCH TYVRCTRSVS IPAPAYYARL VAFRARYHLV DKDHDSAEGS HVSGQSNGRD PQALAKAVQI HHDTQHTMYF A

**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 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.

## Product Details

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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: | AGO4 (EIF2C4) |
| Alternative Name: | AGO4 (EIF2C4 Products) |
| Background: | Protein argonaute-4 (Argonaute4) (hAgo4) (Argonaute RISC catalytic component 4) (Eukaryotic translation initiation factor 2C 4) (eIF-2C 4) (eIF2C 4),FUNCTION: Required for RNA-mediated gene silencing (RNAi). Binds to short RNAs such as microRNAs (miRNAs) and represses the translation of mRNAs which are complementary to them. Lacks endonuclease activity and does not appear to cleave target mRNAs. Also required for RNA-directed transcription and replication of the human hapatitis delta virus (HDV). {ECO:0000255\|HAMAP-Rule:MF_03033, ECO:0000269\|PubMed:15337849, ECO:0000269\|PubMed:18552826, ECO:0000269\|PubMed:18771919}. |
| Molecular Weight: | 97.1 kDa |
| UniProt: | Q9HCK5 |
| Pathways: | Fc-epsilon Receptor Signaling Pathway, Regulatory RNA Pathways, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Cellular Glucan Metabolic Process |

## 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 |

## Application Details

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|---|---|
| | 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 |