Datasheet for ABIN3092524

# EYA2 Protein (AA 1-538) (Strep Tag)

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## Overview

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| Quantity: | 250 µg |
| Target: | EYA2 |
| Protein Characteristics: | AA 1-538 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This EYA2 protein is labelled with Strep Tag. |
| Application: | SDS-PAGE (SDS), ELISA, Western Blotting (WB) |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MVELVISPSL TVNSDCLDKL KFNRADAAVW TLSDRQGITK SAPLRVSQLF SRSCPRVLPR QPSTAMAAYG QTQYSAGIQQ ATPYTAYPPP AQAYGIPSYS IKTEDSLNHS PGQSGFLSYG SSFSTSPTGQ SPYTYQMHGT TGFYQGGNGL GNAAGFGSVH QDYPSYPGFP QSQYPQYYGS SYNPPYVPAS SICPSPLSTS TYVLQEASHN VPNQSSESLA GEYNTHNGPS TPAKEGDTDR PHRASDGKLR GRSKRSSDPS PAGDNEIERV FVWDLDETII IFHSLLTGTF ASRYGKDTTT SVRIGLMMEE MIFNLADTHL FFNDLEDCDQ IHVDDVSSDD NGQDLSTYNF SADGFHSSAP GANLCLGSGV HGGVDWMRKL AFRYRRVKEM YNTYKNNVGG LIGTPKRETW LQLRAELEAL TDLWLTHSLK ALNLINSRPN CVNVLVTTTQ LIPALAKVLL YGLGSVFPIE NIYSATKTGK ESCFERIMQR FGRKAVYVVI GDGVEEEQGA KKHNMPFWRI SCHADLEALR HALELEYL **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** |

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| | **have a special request, please contact us.** |
| Characteristics: | Key Benefits:<br>• Made in Germany - from design to production - by highly experienced protein experts.<br>• Protein expressed with ALiCE® and purified in one-step affinity chromatography<br>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br>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.<br><br>Expression System:<br>• 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!<br><br>Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured against its specific reference buffer.<br>• 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®). |
| Purity: | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC). |
| Grade: | custom-made |

## Target Details

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| Target: | EYA2 |
| Alternative Name: | EYA2 (EYA2 Products) |
| Background: | Eyes absent homolog 2 (EC 3.1.3.48),FUNCTION: Functions both as protein phosphatase and as transcriptional coactivator for SIX1, and probably also for SIX2, SIX4 and SIX5 (PubMed:12500905, PubMed:23435380). Tyrosine phosphatase that dephosphorylates 'Tyr-142' of histone H2AX (H2AXY142ph) and promotes efficient DNA repair via the recruitment of DNA repair complexes containing MDC1. 'Tyr-142' phosphorylation of histone H2AX plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress (PubMed:19351884). Its function as histone phosphatase may contribute to its function in transcription regulation during organogenesis. Plays an important role in hypaxial muscle development together with SIX1 and DACH2, in this it is functionally redundant with EYA1 (PubMed:12500905). {ECO:0000269\|PubMed:12500905, ECO:0000269\|PubMed:19351884, ECO:0000269\|PubMed:21706047, ECO:0000269\|PubMed:23435380}. |
| Molecular Weight: | 59.2 kDa |
| UniProt: | O00167 |

## 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 |