Datasheet for ABIN3092091

# DDX5 Protein (AA 1-614) (Strep Tag)

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## Overview

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| Quantity: | 250 µg |
| Target: | DDX5 |
| Protein Characteristics: | AA 1-614 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This DDX5 protein is labelled with Strep Tag. |
| Application: | SDS-PAGE (SDS), Western Blotting (WB), ELISA |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MSGYSSDRDR GRDRGFGAPR FGGSRAGPLS GKKFGNPGEK LVKKKWNLDE LPKFEKNFYQ EHPDLARRTA QEVETYRRSK EITVRGHNCP KPVLNFYEAN FPANVMDVIA RQNFTEPTAI QAQGWPVALS GLDMVGVAQT GSGKTLSYLL PAIVHINHQP FLERGDGPIC LVLAPTRELA QQVQQVAAEY CRACRLKSTC IYGGAPKGPQ IRDLERGVEI CIATPGRLID FLECGKTNLR RTTYLVLDEA DRMLDMGFEP QIRKIVDQIR PDRQTLMWSA TWPKEVRQLA EDFLKDYIHI NIGALELSAN HNILQIVDVC HDVEKDEKLI RLMEEIMSEK ENKTIVFVET KRRCDELTRK MRRDGWPAMG IHGDKSQQER DWVLNEFKHG KAPILIATDV ASRGLDVEDV KFVINYDYPN SSEDYIHRIG RTARSTKTGT AYTFFTPNNI KQVSDLISVL REANQAINPK LLQLVEDRGS GRSRGRGGMK DDRRDRYSAG KRGGFNTFRD RENYDRGYSS LLKRDFGAKT QNGVYSAANY TNGSFGSNFV SAGIQTSFRT GNPTGTYQNG YDSTQQYGSN VPNMHNGMNQ QAYAYPATAA APMIGYPMPT GYSQ |

## Product Details

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| | **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:<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). |

## Product Details

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| Grade: | custom-made |

## Target Details

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| Target: | DDX5 |
| Alternative Name: | DDX5 (DDX5 Products) |
| Background: | Probable ATP-dependent RNA helicase DDX5 (EC 3.6.4.13) (DEAD box protein 5) (RNA helicase p68),FUNCTION: Involved in the alternative regulation of pre-mRNA splicing, its RNA helicase activity is necessary for increasing tau exon 10 inclusion and occurs in a RBM4-dependent manner. Binds to the tau pre-mRNA in the stem-loop region downstream of exon 10. The rate of ATP hydrolysis is highly stimulated by single-stranded RNA. Involved in transcriptional regulation, the function is independent of the RNA helicase activity. Transcriptional coactivator for androgen receptor AR but probably not ESR1. Synergizes with DDX17 and SRA1 RNA to activate MYOD1 transcriptional activity and involved in skeletal muscle differentiation. Transcriptional coactivator for p53/TP53 and involved in p53/TP53 transcriptional response to DNA damage and p53/TP53-dependent apoptosis. Transcriptional coactivator for RUNX2 and involved in regulation of osteoblast differentiation. Acts as a transcriptional repressor in a promoter-specific manner, the function probably involves association with histone deacetylases, such as HDAC1. As component of a large PER complex is involved in the inhibition of 3' transcriptional termination of circadian target genes such as PER1 and NR1D1 and the control of the circadian rhythms. {ECO:0000269\|PubMed:12527917, ECO:0000269\|PubMed:15298701, ECO:0000269\|PubMed:15660129, ECO:0000269\|PubMed:17011493, ECO:0000269\|PubMed:17960593, ECO:0000269\|PubMed:18829551, ECO:0000269\|PubMed:19718048, ECO:0000269\|PubMed:21343338}. |
| Molecular Weight: | 69.1 kDa |
| UniProt: | P17844 |
| Pathways: | Intracellular Steroid Hormone Receptor Signaling Pathway, Regulation of Intracellular Steroid Hormone Receptor Signaling, Nuclear Hormone Receptor Binding, Regulation of Muscle Cell Differentiation, Positive Regulation of Response to DNA Damage Stimulus |

## 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 |

## Application Details

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| | 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 |