Datasheet for ABIN3119865

# HSF4 Protein (AA 1-492) (Strep Tag)

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## Overview

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| Quantity: | 250 µg |
| Target: | HSF4 |
| Protein Characteristics: | AA 1-492 |
| Origin: | Mouse |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This HSF4 protein is labelled with Strep Tag. |
| Application: | SDS-PAGE (SDS), Western Blotting (WB), ELISA |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MQEAPAALPT EPGPSPVPAF LGKLWALVGD PGTDHLIRWS PSGTSFLVSD QSRFAKEVLP QYFKHSNMAS FVRQLNMYGF RKVVSIEQGG LLRPERDHVE FQHPSFVRGR EQLLERVRRK VPALRGDDSR WRPEDLSRLL GEVQALRGVQ ESTEARLQEL RQQNEILWRE VVTLRQSHSQ QHRVIGKLIQ CLFGPLQTGP SSTGAKRKLS LMLDEGSACS ASAKFNACPV SGALLQDPYF IQSPLPETTL GLSPHRARGP IISDIPEDSP SPEGHRLSPS GGCRRVKGLA LLKEEPASPG GDGEAGLALA PNECDFCVTA PPPLPVAVVQ AILEGKGSYS PEGPRSVQQP EPRGPREVPD RGTLGLDRGN RSPESLLPPM LLRPAPETLE PVAPVDVLGP SLHGREWTLM DLDMELSLMQ PLAPETDEAE LTVKELNSSG VGKDHTLGTP LMLDVQADLE GAALSVPGAL TLYNVTESNA SYLDPGASPS SP<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** |

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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: | HSF4 |
| Alternative Name: | Hsf4 (HSF4 Products) |
| Background: | Heat shock factor protein 4 (HSF 4) (mHSF4) (Heat shock transcription factor 4) (HSTF 4),FUNCTION: Heat-shock transcription factor that specifically binds heat shock promoter elements (HSE) (By similarity). Required for denucleation and organelle rupture and degradation that occur during eye lens terminal differentiation, when fiber cells that compose the lens degrade all membrane-bound organelles in order to provide lens with transparency to allow the passage of light (By similarity). In this process, may regulate denucleation of lens fiber cells in part by activating DNASE2B transcription (By similarity). May be involved in DNA repair through the transcriptional regulation of RAD51 (By similarity). May up-regulate p53/TP53 protein in eye lens fiber cells, possibly through protein stabilization (By similarity). In the eye lens, controls the expression of alpha-crystallin B chain/CRYAB and consequently may be involved in the regulation of lysosomal acidification (PubMed:31786107). {ECO:0000250\|UniProtKB:Q5CZP2, ECO:0000250\|UniProtKB:Q9ULV5, ECO:0000269\|PubMed:31786107}., FUNCTION: [Isoform HSF4A]: Transcriptional repressor. {ECO:0000269\|PubMed:10488131}., FUNCTION: [Isoform HSF4B]: Transcriptional activator. {ECO:0000269\|PubMed:10488131}. |
| Molecular Weight: | 53.3 kDa |
| UniProt: | Q9R0L1 |
| Pathways: | MAPK Signaling |

## 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 |

## Application Details

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| | 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 |