

Datasheet for ABIN3136530

NFATC4 Protein (AA 1-901) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	NFATC4
Protein Characteristics:	AA 1-901
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NFATC4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MGAASCEDEE LEFKLVFGEE KEPPLGPGG PGEELDSEDTPPCCRLALGE PLPYGAAPIG</p> <p>IPRPPPPRPG MHSPPPRPAP SPGTWESQPA RSVRLGGPGG NAGGAGGGRV LECPSIRITS</p> <p>ISPTDPPTS LEDTSETWGD GSPRDYPPPE GFGGYREAGG QGGGAFFSPS PGSSSLSSWS</p> <p>FFSDASDEAA LYAACDEVES ELNEAASRFG LSSPLPSPRA SPRPWTPEDP WSLYGPSSGG</p> <p>RAPEDSWLLL SAPGPVPASP RPASPCGKRR YSSSGTPSSA SPALSRRGSL GEEGPEPPPP</p> <p>PPLPLVRDPS SPGPFDYVGA PPTESIPQKT RRTSSEQAVA LPRSEPPSC NGKLPSGTED</p> <p>SVAAPGALRK EVAGMDYLAV PSPLAWSKAR IGGHSPIFRT SALPPLDWPL PSQYEQLRLR</p> <p>IEVQPRAHHR AHYETEGSRG AVKAAPGGHP VKLLGYSEK PLTLQMFIGT ADERSLRPHA</p> <p>FYQVHRITGK MVATASYEAV VSGTKVLEMT LLPENNMAAN IDCAGILKLR NSDIELRKGE</p> <p>TDIGRKNTRV RLVFRVHVPQ GGGKVVSQA ASVPIECSQR SAQELPQVET YSPSACSVRG</p> <p>GEELVLTGSN FLPDSKVFI ERGPDGKLQW EEEAAVNRLQ SSEVTLTLTI PEYSNKRVS</p>

PVQVYFYVSN GRRKRSPTQS FKFLPVVFKE EPLPDSSLRG FPSTSGPPFG PDVDFSPPRP
PYPSYPHEDP AYETPYLSEG FGYSTPALYP QTGPPPSYRS GLRMFPETGG TTGCARLPSV
SFLPRPFPD QYGGQGSSFA LGLPFSPAP FRPPLPSSPP LEDPFHPQSA IHPLPPEGYN
EVGPGYTPGE GASEQEKARG GYSSGFRDSV PIQGITLEEV SEIIGRDLSG FPARPGEEPP 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

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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Target Details

Target:	NFATC4
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Alternative Name:	Nfatc4 (NFATC4 Products)
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Background:	<p>Nuclear factor of activated T-cells, cytoplasmic 4 (NF-ATc4) (NFATc4) (T-cell transcription factor NFAT3) (NF-AT3),FUNCTION: Ca(2+)-regulated transcription factor that is involved in several processes, including the development and function of the immune, cardiovascular, musculoskeletal, and nervous systems. Involved in T-cell activation, stimulating the transcription of cytokine genes, including that of IL2 and IL4 (PubMed:17198697). Following JAK/STAT signaling activation and as part of a complex with NFATC3 and STAT3, binds to the alpha-beta E4 promoter region of CRYAB and activates transcription in cardiomyocytes (PubMed:19538478). Along with NFATC3, involved in embryonic heart development (PubMed:12750314, PubMed:17198697). Involved in mitochondrial energy metabolism required for cardiac morphogenesis and function (PubMed:12750314). Transactivates many genes involved in heart physiology. Along with GATA4, binds to and activates NPPB/BNP promoter (PubMed:9568714). Activates NPPA/ANP/ANF and MYH7/beta-MHC transcription (By similarity). Binds to and transactivates AGTR2 gene promoter (PubMed:17198697). Involved in the regulation of adult hippocampal neurogenesis. Involved in BDNF-driven pro-survival signaling in hippocampal adult-born neurons. Involved in the formation of long-term spatial memory and long-term potentiation (PubMed:22586092). In cochlear nucleus neurons, may play a role in deafferentation-induced apoptosis during a developmental critical period when auditory neurons depend on afferent input for survival (PubMed:18354019). Binds to and activates the BACE1/Beta-secretase 1 promoter, hence may regulate the proteolytic processing of the amyloid precursor protein (APP). Plays a role in adipocyte differentiation. May be involved in myoblast differentiation into myotubes (By similarity). Binds the consensus DNA sequence 5'-GGAAAT-3' (Probable). In the presence of CREBBP, activates TNF transcription. Binds to PPARG gene promoter and regulates its activity (By similarity). Binds to PPARG and REG3G gene promoters (PubMed:17198697). {ECO:0000250 UniProtKB:D3Z9H7, ECO:0000250 UniProtKB:Q14934, ECO:0000269 PubMed:12750314, ECO:0000269 PubMed:17198697, ECO:0000269 PubMed:18354019,</p>
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Target Details

	ECO:0000269 PubMed:19538478, ECO:0000269 PubMed:22586092, ECO:0000269 PubMed:9568714, ECO:0000305 PubMed:9568714}.
Molecular Weight:	95.8 kDa
UniProt:	Q8K120
Pathways:	RTK Signaling , WNT Signaling

Application Details

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. 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