

Datasheet for ABIN3135464

## CREB3 Protein (AA 1-404) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	CREB3
Protein Characteristics:	AA 1-404
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CREB3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MDPGGQDLLA LDPGDQDLLG FLLEESGDLW AATEPDVKAS LDLELSPSEN SVQELSDWEV  EDLLSSLLSP SVSRDVLGSS SSSILHDHNY SLPQEHVSID LGECEMISCR GRRELTGLAG  STFPFADTES FEKEGFHVTP LPGEERAAEQ EMSRLILTEE EKKLLEKEGL TLPSTLPLTK  VEEQVLKRVR RKIRNKRAAQ ESRKKKKVYV VGLSESRVLKY TAQNRELQNK VQRLEEQNLS  LLDQLRKLQA MVIEIANKTS SGSTCVLVLV FSFCLLLVPA MYSSDARGSV PAEYVVLHRK  LRALPSEDDH QPKPSALSSE LPMDSTHQSL DSSEHMFLVS SNFSCVLYHA PQAEQPLHWP  LWDLSSSEMLF SDSNLLLQAN LSESEGWQPN HSPSLVIFQG RYSG</p> <p><b>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.</b></p>
Characteristics:	Key Benefits:

## Product Details

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- 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.

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:	CREB3
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## Target Details

Alternative Name: Creb3 ([CREB3 Products](#))

Background: Cyclic AMP-responsive element-binding protein 3 (CREB-3) (cAMP-responsive element-binding protein 3) (Transcription factor LZIP) [Cleaved into: Processed cyclic AMP-responsive element-binding protein 3],FUNCTION: Endoplasmic reticulum (ER)-bound sequence-specific transcription factor that directly binds DNA and activates transcription. Plays a role in the unfolded protein response (UPR), promoting cell survival versus ER stress-induced apoptotic cell death. Also involved in cell proliferation, migration and differentiation, tumor suppression and inflammatory gene expression. Acts as a positive regulator of LKN-1/CCL15-induced chemotaxis signaling of leukocyte cell migration. Associates with chromatin to the HERPUD1 promoter. Also induces transcriptional activation of chemokine receptors. Functions as a negative transcriptional regulator in ligand-induced transcriptional activation of the glucocorticoid receptor NR3C1 by recruiting and activating histone deacetylases (HDAC1, HDAC2 and HDAC6). Also decreases the acetylation level of histone H4. Does not promote the chemotactic activity of leukocyte cells. {ECO:0000250|UniProtKB:O43889}., FUNCTION: [Processed cyclic AMP-responsive element-binding protein 3]: This is the transcriptionally active form that translocates to the nucleus and activates unfolded protein response (UPR) target genes during endoplasmic reticulum (ER) stress response. Binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AG][AG]-3') and C/EBP sequences present in many promoters to activate transcription of the genes. Binds to the unfolded protein response element (UPRE) consensus sequences sites. Binds DNA to the 5'-CCAC[GA]-3'half of ERSE II (5'-ATTGG-N-CCACG-3'). {ECO:0000250|UniProtKB:O43889}.

Molecular Weight: 45.1 kDa

UniProt: [Q61817](#)

Pathways: [Thyroid Hormone Synthesis](#), [Myometrial Relaxation and Contraction](#), [ER-Nucleus Signaling](#), [Maintenance of Protein Location](#), [Unfolded Protein Response](#)

## 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: 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

## Application Details

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modifications.

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Restrictions:	For Research Use only
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## Handling

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Format:	Liquid
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Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
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Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	12 months
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