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# CREB3 Protein (AA 1-261) (His tag)





### Overview

Quantity:	1 mg
Target:	CREB3
Protein Characteristics:	AA 1-261
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CREB3 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details	
Sequence:	MDPGGQDLLA LDPGDQDLLG FLLEESGDLW AATEPDVKAS LDLELSPSEN SVQELSDWEV
	EDLLSSLLSP SVSRDVLGSS SSSILHDHNY SLPQEHVSID LGECEMISCR GRRELTGLAG
	STFPFADTES FEKEGFHVTP LPGEERAAEQ EMSRLILTEE EKKLLEKEGL TLPSTLPLTK
	VEEQVLKRVR RKIRNKRAAQ ESRKKKKVYV VGLESRVLKY TAQNRELQNK VQRLEEQNLS
	LLDQLRKLQA MVIEIANKTS S
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse Creb3 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>

This protein is a made to order protein and will be made for the first time for your order. Our

experts in the lab will ensure that you receive a correctly folded 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in bacterial culture:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 um filtered

Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### Target Details

Target:	CREB3
Alternative Name:	Creb3 (CREB3 Products)
Background:	Endoplasmic reticulum (ER)-bound transcription factor that plays a role in the unfolded protein
	response (UPR). Involved in cell proliferation and migration, tumor suppression and

inflammatory gene expression. Plays a role in the unfolded protein response (UPR). Acts as a positive regulator of LKN-1/CCL15-induced chemotaxis signaling of leukocyte cell migration. 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). Decreases the acetylation level of histone H4. Does not promote the chemotactic activity of leukocyte cells (By similarity). {ECO:0000250}., Processed cyclic AMPresponsive element-binding protein 3: acts as a transcription factor that activates unfolded protein response (UPR) target genes during endoplasmic reticulum (ER) stress response. Promotes cell survival against ER stress-induced apoptotic cell death during UPR. Activates transcription from CRE and C/EBP-containing reporter genes. Induces transcriptional activation of chemokine receptors. It's transcriptional activity is inhibited by CREBZF in a HCFC1dependent manner. Binds DNA to the cAMP response element (CRE) (consensus: 5'-GTGACGT[AG][AG]-3') and C/EBP sequences present in many cellular promoters. Binds to the unfolded protein respons element (UPRE) consensus sequences sites. Binds DNA to the 5'-CCAC[GA]-3'half of ERSE II (5'-ATTGG-N-CCACG-3'). Associates with chromatin to the HERPUD1 promoter (By similarity). {ECO:0000250}.

Molecular Weight:	30.2 kDa Including tag.
UniProt:	Q61817
Pathways:	Thyroid Hormone Synthesis, Myometrial Relaxation and Contraction, ER-Nucleus Signaling,
	Maintenance of Protein Location, Unfolded Protein Response

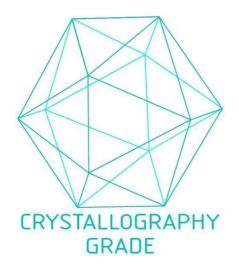
## **Application Details**

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 gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only
Handling	
Format:	Liquid

# Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

# **Images**



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process