Datasheet for ABIN3110220

CREB3 Protein (AA 1-395) (rho-1D4 tag)

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Overview

Quantity:	1 mg
Target:	CREB3
Protein Characteristics:	AA 1-395
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CREB3 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MELELDAGDQ DLLAFLLEES GDLGTAPDEA VRAPLDWALP LSEVPSDWEV DDLLCSLLSP PASLNILSSS NPCLVHHDHT YSLPRETVSM DLGECEISLT GRTGFMGLAI HTFPFAESES CRKEGTQMTP QHMEELAEQE IARLVLTDEE KSLLEKEGLI LPETLPLTKT EEQILKRVRR KIRNKRSAQE SRRKKKVYVG GLESRVLKYT AQNMELQNKV QLLEEQNLSL LDQLRKLQAM VIEISNKTSS SSTCILVLLV SFCLLLVPAM YSSDTRGSLP AEHGVLSRQL RALPSEDPYQ LELPALQSEV PKDSTHQWLD GSDCVLQAPG NTSCLLHYMP QAPSAEPPLE WPFPDLFSEP LCRGPILPLQ ANLTRKGGWL PTGSPSVILQ DRYSG **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human CREB3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

	• 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 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:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot. 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot. 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
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 also a role in the human immunodeficiency virus type 1 (HIV-1) virus protein expression and in the herpes simplex virus-1 (HSV-1) latent infection and reactivation from latency. Isoform 2 plays a role in the unfolded protein response (UPR). Isoform 2 acts as a positive regulator of LKN-1/CCL15-induced chemotaxis signaling of leukocyte cell migration. Isoform 2 may play a role as a cellular tumor suppressor that is targeted by the hepatitis C virus (HSV) core protein. Isoform 2 represses the VP16-mediated transactivation of immediate early genes of the HSV-1 virus by sequestring host cell factor-1 HCFC1 in the ER membrane of sensory neurons, thereby preventing the initiation of the replicative cascade leading to latent infection. Isoform 3 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). Isoform 3 decreases the acetylation level of histone H4. Isoform 3 does not promote the chemotactic activity of leukocyte cells., Processed cyclic AMP-responsive 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. Activates transcription of genes required for reactivation of the latent HSV-1 virus. Down-regulates Tat-dependent transcription of the HIV-1 LTR by interacting with HIV-1 Tat. It's transcriptional activity is inhibited by CREBZF in a HCFC1-dependent manner, by the viral transactivator protein VP16 and by the HCV core protein. Binds DNA to the cAMP response element (CRE) (consensus: 5'-GTGACGT[AG][AG]-3') and C/EBP sequences present in many viral and 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.
Molecular Weight:	45.1 kDa Including tag.
UniProt:	O43889
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 gurantee though.
Comment:	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
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)