Datasheet for ABIN3079353

EGR1 Protein (AA 1-543) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	EGR1
Protein Characteristics:	AA 1-543
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EGR1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MAAAKAEMQL MSPLQISDPF GSFPHSPTMD NYPKLEEMML LSNGAPQFLG AAGAPEGSGS NSSSSSSGGG GGGGGGSNSS SSSSTFNPQA DTGEQPYEHL TAESFPDISL NNEKVLVETS YPSQTTRLPP ITYTGRFSLE PAPNSGNTLW PEPLFSLVSG LVSMTNPPAS SSSAPSPAAS SASASQSPPL SCAVPSNDSS PIYSAAPTFP TPNTDIFPEP QSQAFPGSAG TALQYPPPAY PAAKGGFQVP MIPDYLFPQQ QGDLGLGTPD QKPFQGLESR TQQPSLTPLS TIKAFATQSG SQDLKALNTS YQSQLIKPSR MRKYPNRPSK TPPHERPYAC PVESCDRRFS RSDELTRHIR IHTGQKPFQC RICMRNFSRS DHLTTHIRTH TGEKPFACDI CGRKFARSDE RKRHTKIHLR QKDKKADKSV VASSATSSLS SYPSPVATSY PSPVTTSYPS PATTSYPSPV PTSFSSPGSS TYPSPVHSGF PSPSVATTYS SVPPAFPAQV SSFPSSAVTN SFSASTGLSD MTATFSPRTI EIC **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.**

Product Details

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. 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

Product Details

	Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	EGR1
Alternative Name:	EGR1 (EGR1 Products)
Background:	Early growth response protein 1 (EGR-1) (AT225) (Nerve growth factor-induced protein A) (NGFI-A) (Transcription factor ETR103) (Transcription factor Zif268) (Zinc finger protein 225) (Zinc finger protein Krox-24),FUNCTION: Transcriptional regulator (PubMed:20121949). Recognizes and binds to the DNA sequence 5'-GCG(T/G)GGGCG-3'(EGR-site) in the promoter region of target genes (By similarity). Binds double-stranded target DNA, irrespective of the cytosine methylation status (PubMed:25258363, PubMed:25999311). Regulates the transcription of numerous target genes, and thereby plays an important role in regulating the response to growth factors, DNA damage, and ischemia. Plays a role in the regulation of cell survival, proliferation and cell death. Activates expression of p53/TP53 and TGFB1, and thereby helps prevent tumor formation. Required for normal progress through mitosis and normal proliferation of hepatocytes after partial hepatectomy. Mediates responses to ischemia and hypoxia, regulates the expression of proteins such as IL1B and CXCL2 that are involved in inflammatory processes and development of tissue damage after ischemia. Regulates biosynthesis of luteinizing hormone (LHB) in the pituitary (By similarity). Regulates the amplitude of the expression rhythms of clock genes: BMAL1, PER2 and NR1D1 in the liver via the activation of PER1 (clock repressor) transcription. Regulates the rhythmic expression of core-clock gene BMAL1 in the suprachiasmatic nucleus (SCN) (By similarity). {ECO:0000250|UniProtKB:P08046, ECO:0000269|PubMed:20121949, ECO:0000269|PubMed:25258363, ECO:0000269|PubMed:25999311}.
Molecular Weight:	57.5 kDa
UniProt:	P18146
Pathways:	Regulation of Carbohydrate Metabolic Process, Regulation of long-term Neuronal Synaptic Plasticity

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 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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)