

Datasheet for ABIN3095008 REST Protein (AA 1-1097) (Strep Tag)



Overview

Quantity:	250 µg
Target:	REST
Protein Characteristics:	AA 1-1097
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This REST protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MATQVMGQSS GGGGLFTSSG NIGMALPNDM YDLHDLSKAE LAAPQLIMLA NVALTGEVNG
	SCCDYLVGEE RQMAELMPVG DNNFSDSEEG EGLEESADIK GEPHGLENME LRSLELSVVE
	PQPVFEASGA PDIYSSNKDL PPETPGAEDK GKSSKTKPFR CKPCQYEAES EEQFVHHIRV
	HSAKKFFVEE SAEKQAKARE SGSSTAEEGD FSKGPIRCDR CGYNTNRYDH YTAHLKHHTR
	AGDNERVYKC IICTYTTVSE YHWRKHLRNH FPRKVYTCGK CNYFSDRKNN YVQHVRTHTG
	ERPYKCELCP YSSSQKTHLT RHMRTHSGEK PFKCDQCSYV ASNQHEVTRH ARQVHNGPKP
	LNCPHCDYKT ADRSNFKKHV ELHVNPRQFN CPVCDYAASK KCNLQYHFKS KHPTCPNKTM
	DVSKVKLKKT KKREADLPDN ITNEKTEIEQ TKIKGDVAGK KNEKSVKAEK RDVSKEKKPS
	NNVSVIQVTT RTRKSVTEVK EMDVHTGSNS EKFSKTKKSK RKLEVDSHSL HGPVNDEESS
	TKKKKKVESK SKNNSQEVPK GDSKVEENKK QNTCMKKSTK KKTLKNKSSK KSSKPPQKEP
	VEKGSAQMDP PQMGPAPTEA VQKGPVQVEP PPPMEHAQME GAQIRPAPDE PVQMEVVQEG

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/5 | Product datasheet for ABIN3095008 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

	PAQKELLPPV EPAQMVGAQI VLAHMELPPP METAQTEVAQ MGPAPMEPAQ MEVAQVESAP
	MQVVQKEPVQ MELSPPMEVV QKEPVQIELS PPMEVVQKEP VKIELSPPIE VVQKEPVQME
	LSPPMGVVQK EPAQREPPPP REPPLHMEPI SKKPPLRKDK KEKSNMQSER ARKEQVLIEV
	GLVPVKDSWL LKESVSTEDL SPPSPPLPKE NLREEASGDQ KLLNTGEGNK EAPLQKVGAE
	EADESLPGLA ANINESTHIS SSGQNLNTPE GETLNGKHQT DSIVCEMKMD TDQNTRENLT
	GINSTVEEPV SPMLPPSAVE EREAVSKTAL ASPPATMAAN ESQEIDEDEG IHSHEGSDLS
	DNMSEGSDDS GLHGARPVPQ ESSRKNAKEA LAVKAAKGDF VCIFCDRSFR KGKDYSKHLN
	RHLVNVYYLE EAAQGQE
	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:
Characteristics:	 Key Benefits: Made in Germany - from design to production - by highly experienced protein experts.
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
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
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).
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).
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).
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).
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.

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 posttranslational 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:

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/5 | Product datasheet for ABIN3095008 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

- 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

Target:	REST
Alternative Name:	REST (REST Products)
Background:	RE1-silencing transcription factor (Neural-restrictive silencer factor) (X2 box
	repressor),FUNCTION: Transcriptional repressor which binds neuron-restrictive silencer
	element (NRSE) and represses neuronal gene transcription in non-neuronal cells
	(PubMed:12399542, PubMed:26551668, PubMed:7697725, PubMed:7871435,
	PubMed:8568247, PubMed:11741002, PubMed:11779185). Restricts the expression of
	neuronal genes by associating with two distinct corepressors, SIN3A and RCOR1, which in turn
	recruit histone deacetylase to the promoters of REST-regulated genes (PubMed:10449787,
	PubMed:10734093). Mediates repression by recruiting the BHC complex at RE1/NRSE sites
	which acts by deacetylating and demethylating specific sites on histones, thereby acting as a
	chromatin modifier (By similarity). Transcriptional repression by REST-CDYL via the recruitment
	of histone methyltransferase EHMT2 may be important in transformation suppression
	(PubMed:19061646). Represses the expression of SRRM4 in non-neural cells to prevent the
	activation of neural-specific splicing events and to prevent production of REST isoform 3 (By
	similarity). Repressor activity may be inhibited by forming heterodimers with isoform 3, thereby
	preventing binding to NRSE or binding to corepressors and leading to derepression of target
	genes (PubMed:11779185). Also maintains repression of neuronal genes in neural stem cells,
	and allows transcription and differentiation into neurons by dissociation from RE1/NRSE sites
	of target genes (By similarity). Thereby is involved in maintaining the quiescent state of adult
	neural stem cells and preventing premature differentiation into mature neurons
	(PubMed:21258371). Plays a role in the developmental switch in synaptic NMDA receptor
	composition during postnatal development, by repressing GRIN2B expression and thereby
	altering NMDA receptor properties from containing primarily GRIN2B to primarily GRIN2A

	subunits (By similarity). Acts as a regulator of osteoblast differentiation (By similarity). Key
	repressor of gene expression in hypoxia, represses genes in hypoxia by direct binding to an
	RE1/NRSE site on their promoter regions (PubMed:27531581). May also function in stress
	resistance in the brain during aging, possibly by regulating expression of genes involved in cell
	death and in the stress response (PubMed:24670762). Repressor of gene expression in the
	hippocampus after ischemia by directly binding to RE1/NRSE sites and recruiting SIN3A and
	RCOR1 to promoters of target genes, thereby promoting changes in chromatin modifications
	and ischemia-induced cell death (By similarity). After ischemia, might play a role in repression
	of miR-132 expression in hippocampal neurons, thereby leading to neuronal cell death (By
	similarity). Negatively regulates the expression of SRRM3 in breast cancer cell lines
	(PubMed:26053433). {ECO:0000250 UniProtKB:054963, ECO:0000250 UniProtKB:Q8VIG1,
	ECO:0000269 PubMed:10449787, ECO:0000269 PubMed:10734093,
	ECO:0000269 PubMed:11741002, ECO:0000269 PubMed:11779185,
	ECO:0000269 PubMed:12399542, ECO:0000269 PubMed:19061646,
	EC0:0000269 PubMed:21258371, EC0:0000269 PubMed:24670762,
	EC0:0000269 PubMed:26053433, EC0:0000269 PubMed:26551668,
	ECO:0000269 PubMed:27531581, ECO:0000269 PubMed:7697725,
	EC0:0000269 PubMed:7871435, EC0:0000269 PubMed:8568247}., FUNCTION: [Isoform 3]:
	Binds to the 3' region of the neuron-restrictive silencer element (NRSE), with lower affinity than
	full-length REST isoform 1 (By similarity). Exhibits weaker repressor activity compared to
	isoform 1 (PubMed:11779185). May negatively regulate the repressor activity of isoform 1 by
	binding to isoform 1, thereby preventing its binding to NRSE and leading to derepression of
	target genes (PubMed:11779185). However, in another study, does not appear to be implicated
	in repressor activity of a NRSE motif-containing reporter construct nor in inhibitory activity on
	the isoform 1 transcriptional repressor activity (PubMed:11741002). Post-transcriptional
	inactivation of REST by SRRM4-dependent alternative splicing into isoform 3 is required in
	mechanosensory hair cells in the inner ear for derepression of neuronal genes and hearing (By
	similarity). {ECO:0000250 UniProtKB:Q8VIG1, ECO:0000269 PubMed:11741002,
	ECO:0000269 PubMed:11779185}.
Molecular Weight:	121.9 kDa
UniProt:	Q13127
Pathways:	Negative Regulation of Hormone Secretion, Regulation of Hormone Metabolic Process,

Regulation of Hormone Biosynthetic Process, Chromatin Binding, Positive Regulation of Endopeptidase Activity

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 4/5 | Product datasheet for ABIN3095008 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

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. 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