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Datasheet for ABIN3095987

TARBP2 Protein (AA 1-366) (Strep Tag)

Overview

Quantity:	1 mg
Target:	TARBP2
Protein Characteristics:	AA 1-366
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TARBP2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MSEEEQSGST TTGCGLPSIE QMLAANPGKT PISLLQEYGT RIGKTPVYDL LKAEGQAHQP
NFTFRVTVGD TSCTGQGPSK KAAKHKAAEV ALKHLKGGSM LEPALDSSS FSPLDSSLPE
DIPVFATAAAA ATPVPSVLT RSPPMELQPP VSPQQSECNP VGALQELVVQ KGWRLPEYTV
TQESGPAHRK EFTMTCRVER FIEIGSGTSK KLAKRNAAK MLLRVHTVPL DARDGNEVEP
DDDHFSIGVG SRLDGLRNRG PGCTWDSLRLN SVGEKILSLR SCSLGLSLGAL GPACCRVLSE
LSEEQAFHVS YLDIEELSLS GLCQCLVELS TQPATVCHGS ATTREAAARGE AARRALQYLK IMAGSK

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:

- 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 Western blot.

Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Product Details

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target: TARBP2

Alternative Name: TARBP2 ([TARBP2 Products](#))

Background: RISC-loading complex subunit TARBP2 (TAR RNA-binding protein 2) (Trans-activation-responsive RNA-binding protein),FUNCTION: Required for formation of the RNA induced silencing complex (RISC). Component of the RISC loading complex (RLC), also known as the micro-RNA (miRNA) loading complex (miRLC), which is composed of DICER1, AGO2 and TARBP2. Within the RLC/miRLC, DICER1 and TARBP2 are required to process precursor miRNAs (pre-miRNAs) to mature miRNAs and then load them onto AGO2. AGO2 bound to the mature miRNA constitutes the minimal RISC and may subsequently dissociate from DICER1 and TARBP2. May also play a role in the production of short interfering RNAs (siRNAs) from double-stranded RNA (dsRNA) by DICER1 (By similarity) (PubMed:15973356, PubMed:16142218, PubMed:16271387, PubMed:16357216, PubMed:16424907, PubMed:17452327, PubMed:18178619). Binds in vitro to the PRM1 3'-UTR (By similarity). Seems to act as a repressor of translation (By similarity). For some pre-miRNA substrates, may also alter the choice of cleavage site by DICER1 (PubMed:23063653). Negatively regulates IRF7-mediated IFN-beta signaling triggered by viral infection by inhibiting the phosphorylation of IRF7 and promoting its 'Lys'-48-linked ubiquitination and degradation (PubMed:30927622). {ECO:0000250|UniProtKB:P97473, ECO:0000255|HAMAP-Rule:MF_03034, ECO:0000269|PubMed:15973356, ECO:0000269|PubMed:16142218, ECO:0000269|PubMed:16271387, ECO:0000269|PubMed:16357216, ECO:0000269|PubMed:16424907, ECO:0000269|PubMed:17452327, ECO:0000269|PubMed:18178619, ECO:0000269|PubMed:23063653, ECO:0000269|PubMed:30927622}., FUNCTION: (Microbial infection) Binds to the HIV-1 TAR RNA which is located in the long terminal repeat (LTR) of HIV-1, and stimulates translation of TAR-containing RNAs (PubMed:2011739, PubMed:11438532, PubMed:12475984). This is achieved in part at least by binding to and inhibiting EIF2AK2/PKR, thereby reducing phosphorylation and inhibition of EIF2S1/eIF-2-alpha (PubMed:11438532). May also promote translation of TAR-containing RNAs independently of EIF2AK2/PKR (PubMed:12475984). Mediates recruitment of FTSJ3 methyltransferase to HIV-1 RNA, leading to 2'-O-methylation of the viral genome, allowing HIV-1 to escape the innate immune system (PubMed:30626973). {ECO:0000269|PubMed:11438532, ECO:0000269|PubMed:12475984, ECO:0000269|PubMed:2011739, ECO:0000269|PubMed:30626973}.

Target Details

Molecular Weight:	39.0 kDa
UniProt:	Q15633
Pathways:	Regulatory RNA Pathways , Ribonucleoprotein Complex Subunit Organization

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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)