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Datasheet for ABIN3094768

Periaxin Protein (PRX) (AA 1-1461) (Strep Tag)

Overview

Quantity:	1 mg
Target:	Periaxin (PRX)
Protein Characteristics:	AA 1-1461
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Periaxin protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MEARSRSAEE LRRAELVEII VETEAQTGVS GINVAGGGKE GIFVRELRED SPAARSLSLQ
 EGDQLLSARV FFENFKYEDA LRLQCAEPY KVSFCLKRTV PTGDALRPG TVSGYEIKGP
 RAKVAKLNIQ SLSPVKKKKM VPGALGVPAD LAPVDVEFSF PKFSRLRRGL KAEAVKGPVP
 AAPARRRLQL PRLRVREVAE EAQAARLAAA APPPRKAKVE AEVAAGARFT APQVELVGPR
 LPGAEVGVVQ VSAPKAAPSA EAAGGFALHL PTLGLGAPAP PAVEAPAVGI QVPQVELPAL
 PSLPTLPTLP CLETREGAVS VVPTLDVAA PTVGVDLALP GAEVEARGEA PEVALKMPRL
 SFPRFGARAK EVAEAKVAKV SPEARVKGPR LRMPPTFGLSL LEPRPAAPEV VESKCLKLPTI
 KMPSLGIGVS GPEVKVPKGP EVKLPKAPPEV KLPKVPEAAL PEVRLPEVEL PKVSEMMLPK
 VPPEMAVPEVR LPEVELPKVS EMKLPKVPPEM AVPEVRLPEV QLLKVSEMML PKVPEMAVPE
 VRLPEVQLPK VSEMMLPEVS EVAVPEVRLP EVQLPKVPPEM KVPPEMMLPKV PEMKLPPEMML
 PEVQLPKVPE MAVPDVHLPE VQLPKVPEMK LPEMMLPEVK LPKVPEMAVP DVHLPEVQLP
 KVPEMMLPKM PEMAVPEVRL PEVQLPKVSE MKLPKVPPEM VPDVHLPEVQ LPKVCEMMLPKV

DMKLPEIKLP KVPMAVPDV HLPEVQLPKV SEIRLPEMQV PKVPDVHLPK APEVKLPRAP
EVQLKATKAE QAEGMEFGFK MPKMTMPKLG RAESPSRGKP GEAGAEVSGK LVTLPCLQPE
VDGEAHVGVP SLTLPSVELD LPGALGLQGQ VPAAKMGKGE RVEGPEVAAG VREVGFRVPS
VEIVTPQLPA VEIEEGRLEM IETKVKPSSK FSLPKFGLSG PKVAKAEAEAG AGRATKLVKVS
KFAISLPKAR VGAEAEAKGA GEAGLLPALD LSIPQLSLDA HLPSPGKVEVA GADLKFKGPR
FALPKFGVRG RDTEAAELVP GVAELEGKGW GWDGRVKMPK LKMPSFGLAR GKEAEVQGDR
ASPGKAEST AVQLKIPEVE LVTLGAQEEG RAEGAVAVSG MQLSGLKVST AGQVVTEGHD
AGLRMPPLGI SLPQVELTGF GEAGTPGQQA QSTVPSAEGT AGYRVQVPQV TSLPGAQVA
GGELLVGEV FKMPTVTVPQ LELDVGLSRE AQAGEAATGE GGLRLKLPTL GARARVGGEG
AEEQPPGAER TFCLSLPDVE LSPSGGNHAE YQVAEGEGEA GHKLKVRLLPR FGLVRAKEGA
EEGEKAKSPK LRLPRVGFSSQ SEMVTGEGSP SPEEEEEEEE EGSGEGASGR RGRVVRLLPR
VGLAAPSKAS RGQEGDAAPK SPVREKSPKF RFPRVSLSPK ARSGSGDQEE GGLRVRLPSV
GFSETGAPGP ARMEGAQAAA V

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

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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.

Endotoxin Level:

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

Target Details

Target:

Periaxin (PRX)

Alternative Name:

PRX ([PRX Products](#))

Background:

Periaxin,FUNCTION: Scaffolding protein that functions as part of a dystroglycan complex in Schwann cells, and as part of EZR and AHNAK-containing complexes in eye lens fiber cells. Required for the maintenance of the peripheral myelin sheath that is essential for normal transmission of nerve impulses and normal perception of sensory stimuli. Required for normal transport of MBP mRNA from the perinuclear to the paranodal regions. Required for normal remyelination after nerve injury. Required for normal elongation of Schwann cells and normal length of the internodes between the nodes of Ranvier. The demyelinated nodes of Ranvier permit saltatory transmission of nerve impulses, shorter internodes cause slower transmission of nerve impulses. Required for the formation of appositions between the abaxonal surface of the myelin sheath and the Schwann cell plasma membrane, the Schwann cell cytoplasm is

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restricted to regions between these appositions. Required for the formation of Cajal bands and of Schmidt-Lanterman incisures that correspond to short, cytoplasm-filled regions on myelinated nerves. Recruits DRP2 to the Schwann cell plasma membrane. Required for normal protein composition of the eye lens fiber cell plasma membrane and normal eye lens fiber cell morphology. {ECO:0000250|UniProtKB:O55103}.

Molecular Weight: 154.9 kDa

UniProt: [Q9BXM0](#)

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)