Datasheet for ABIN3120443

PEX2 Protein (AA 1-305) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	PEX2
Protein Characteristics:	AA 1-305
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PEX2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MAAREESTQS ANRVLRISQL DALELNKALE QLVWSQFTQC FHGFKPGLLA RFEPEVKAFL WLFLWRFTIY SKNATVGQSV LNIQHKNDSS PNPVYQPPSK NQKLLYAVCT IGGRWLEERC YDLFRNRHLA SFGKAKQCMN FVVGLLKLGE LMNFLIFLQK GKFATLTERL LGIHSVFCKP QNMREVGFEY MNRELLWHGF AEFLIFLLPL INIQKLKAKL SSWCTLCTGA AGHDSTLGSS GKECALCGEW PTMPHTIGCE HVFCYYCVKS SFLFDIYFTC PKCGTEVHSV QPLKAGIQMS EVNAL **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 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.

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 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:	> 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Target Details

Target:	PEX2
Alternative Name:	Pex2 (PEX2 Products)
Background:	Peroxisome biogenesis factor 2 (EC 2.3.2.27) (EC 2.3.2.36) (Peroxin-2) (Peroxisomal membrane protein 3) (Peroxisome assembly factor 1) (PAF-1),FUNCTION: E3 ubiquitin-protein ligase

Target Details

	component of a retrotranslocation channel required for peroxisome organization by mediating export of the PEX5 receptor from peroxisomes to the cytosol, thereby promoting PEX5 recycling (By similarity). The retrotranslocation channel is composed of PEX2, PEX10 and PEX12, each subunit contributing transmembrane segments that coassemble into an open channel that specifically allows the passage of PEX5 through the peroxisomal membrane (By similarity). PEX2 also regulates peroxisome organization by acting as a E3 ubiquitin-protein ligase (By similarity). PEX2 ubiquitinates PEX5 during its passage through the retrotranslocation channel: catalyzes monoubiquitination of PEX5 at 'Cys-11', a modification that acts as a signal for PEX5 extraction into the cytosol (By similarity). Required for pexophagy in response to starvation by mediating ubiquitination of peroxisomal proteins, such as PEX5 and ABCD3/PMP70 (By similarity). Also involved in the response to reactive oxygen species (ROS) by mediating 'Lys-48'-linked polyubiquitination and subsequent degradation of PNPLA2/ATGL, thereby regulating lipolysis (PubMed:34903883). {ECO:0000250|UniProtKB:P28328, ECO:0000250|UniProtKB:P32800, ECO:0000269|PubMed:34903883}.
Molecular Weight:	34.7 kDa
UniProt:	P55098
Pathways:	Monocarboxylic Acid Catabolic Process

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)