Datasheet for ABIN3137277

PDZK1 Protein (AA 1-519) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	PDZK1
Protein Characteristics:	AA 1-519
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDZK1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MASTFNPREC KLSKQEGQNY GFFLRIEKDT DGHLIRVIEE GSPAEKAGLL DGDRVLRING VFVDKEEHAQ VVELVRKSGN SVTLLVLDGD SYEKAVKNQV DLKELDQSQR EAALNDKKPG PGMNGAVEPC AQPRLCYLVK EGNSFGFSLK TIQGKKGVYL TDIMPQGVAM KAGVLADDHL IEVNGENVEN ASHEEVVEKV TKSGSRIMFL LVDKETARCH SEQKTQFKRE TASLKLLPHQ PRVVVIKKGS NGYGFYLRAG PEQKGQIIKD IEPGSPAEAA GLKNNDLVVA VNGKSVEALD HDGVVEMIRK GGDQTTLLVL DKEAESIYSL ARFSPLLYCQ SQELPNGSVK EGPAPIPAPL EATGSEPTED AEGHKPKLCR LLKEDDSYGF HLNAIRGQPG SFVKEVQQGG PADKAGLENE DVIIEVNGEN VQEEPYDRVV ERIKSSGKHV TLLVCGKMAY SYFQAKKIPI VSSMAEPLVA GPDEKGETSA ESEHDAHPAK DRTLSTASHS SSNSEDTEM **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:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	PDZK1
Alternative Name:	Pdzk1 (PDZK1 Products)
Background:	Na(+)/H(+) exchange regulatory cofactor NHE-RF3 (NHERF-3) (CFTR-associated protein of 70 kDa) (Na(+)/H(+) exchanger regulatory factor 3) (Na/Pi cotransporter C-terminal-associated protein 1) (NaPi-Cap1) (PDZ domain-containing protein 1) (Sodium-hydrogen exchanger regulatory factor 3),FUNCTION: A scaffold protein that connects plasma membrane proteins and regulatory components, regulating their surface expression in epithelial cells apical domains. May be involved in the coordination of a diverse range of regulatory processes for ion transport and second messenger cascades. In complex with NHERF1, may cluster proteins that are functionally dependent in a mutual fashion and modulate the trafficking and the activity of the associated membrane proteins. May play a role in the cellular mechanisms associated with multidrug resistance through its interaction with ABCC2 and PDZK1IP1. May potentiate the CFTR chloride channel activity (By similarity). Required for normal cell-surface expression of SCARB1. Plays a role in maintaining normal plasma cholesterol levels via its effects on SCARB1. Plays a role in the normal localization and function of the chloride-anion exchanger SLC26A6 to the plasma membrane in the brush border of the proximal tubule of the kidney. May be involved in the regulation of proximal tubular Na(+)-dependent inorganic phosphate cotransport therefore playing an important role in tubule function. {ECO:0000250, ECO:0000269|PubMed:11051556, ECO:0000269|PubMed:12556478, ECO:0000269|PubMed:14531806, ECO:0000269|PubMed:15523054, ECO:0000269|PubMed:16141316, ECO:0000269|PubMed:20739281, ECO:0000269|PubMed:21602281}.
Molecular Weight:	56.5 kDa
UniProt:	Q9JIL4

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.

Application Details

	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