Datasheet for ABIN3115967

LRRC8D Protein (AA 1-858) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	LRRC8D
Protein Characteristics:	AA 1-858
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LRRC8D protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MFTLAEVASL NDIQPTYRIL KPWWDVFMDY LAVVMLMVAI FAGTMQLTKD QVVCLPVLPS PVNSKAHTPP GNAEVTTNIP KMEAATNQDQ DGRTTNDISF GTSAVTPDIP LRATYPRTDF ALPNQEAKKE KKDPTGRKTN LDFQQYVFIN QMCYHLALPW YSKYFPYLAL IHTIILMVSS NFWFKYPKTC SKVEHFVSIL GKCFESPWTT KALSETACED SEENKQRITG AQTLPKHVST SSDEGSPSAS TPMINKTGFK FSAEKPVIEV PSMTILDKKD GEQAKALFEK VRKFRAHVED SDLIYKLYVV QTVIKTAKFI FILCYTANFV NAISFEHVCK PKVEHLIGYE VFECTHNMAY MLKKLLISYI SIICVYGFIC LYTLFWLFRI PLKEYSFEKV REESSFSDIP DVKNDFAFLL HMVDQYDQLY SKRFGVFLSE VSENKLREIS LNHEWTFEKL RQHISRNAQD KQELHLFMLS GVPDAVFDLT DLDVLKLELI PEAKIPAKIS QMTNLQELHL CHCPAKVEQT AFSFLRDHLR CLHVKFTDVA EIPAWVYLLK NLRELYLIGN LNSENNKMIG LESLRELRHL KILHVKSNLT KVPSNITDVA PHLTKLVIHN DGTKLLVLNS LKKMMNVAEL ELQNCELERI PHAIFSLSNL

QELDLKSNNI RTIEEIISFQ HLKRLTCLKL WHNKIVTIPP SITHVKNLES LYFSNNKLES LPVAVFSLQK LRCLDVSYNN ISMIPIEIGL LQNLQHLHIT GNKVDILPKQ LFKCIKLRTL NLGQNCITSL PEKVGQLSQL TQLELKGNCL DRLPAQLGQC RMLKKSGLVV EDHLFDTLPL EVKEALNQDI NIPFANGI

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.

Product Details

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:	LRRC8D
Alternative Name:	LRRC8D (LRRC8D Products)
Background:	Volume-regulated anion channel subunit LRRC8D (Leucine-rich repeat-containing protein 5) (Leucine-rich repeat-containing protein 8D) (HsLRRC8D),FUNCTION: Non-essential component of the volume-regulated anion channel (VRAC, also named VSOAC channel), an anion channel required to maintain a constant cell volume in response to extracellular or intracellular osmotic changes (PubMed:24790029, PubMed:26530471, PubMed:26824658, PubMed:28193731, PubMed:32415200). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (PubMed:24790029, PubMed:26824658, PubMed:28193731). Plays a redundant role in the efflux of amino acids, such as aspartate, in response to osmotic stress (PubMed:28193731). LRRC8A and LRRC8D are required for the uptake of the drug cisplatin (PubMed:26530471). Channel activity requires LRRC8A plus at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E), channel characteristics depend on the precise subunit composition (PubMed:24782309, PubMed:24790029, PubMed:26824658, PubMed:28193731). Also acts as a regulator of glucose-sensing in pancreatic beta cells: VRAC currents, generated in response to hypotonicity- or glucose-induced beta cell swelling, depolarize cells, thereby causing electrical excitation, leading to increase glucose sensitivity and insulin secretion (By similarity). VRAC channels containing LRRC8D inhibit transport of immunoreactive cyclic dinucleotide GMP-AMP (2'-3'-cGAMP), an immune messenger produced in response to DNA virus in the cytosol (PubMed:33171122). Mediates the import of the antibiotic blasticidin-S into the cell (PubMed:24782309). {ECO:0000250|UniProtKB:Q8BGR2, ECO:0000269|PubMed:24782309, ECO:0000269|PubMed:24790029, ECO:0000269|PubMed:26530471, ECO:0000269|PubMed:26824658, ECO:0000269|PubMed:28193731, ECO:0000269|PubMed:32415200, ECO:0000269|PubMed:33171122}.
Molecular Weight:	98.2 kDa
UniProt:	Q7L1W4

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