

[Go to Product page](#)

Datasheet for ABIN3136140

**LRRC8D Protein (AA 1-859) (Strep Tag)**

## Overview

Quantity:	1 mg
Target:	LRRC8D
Protein Characteristics:	AA 1-859
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LRRC8D protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MFTLAEVASL NDIQPTYRIL KPWWDFVMDY LAVVMLMVAI FAGTMQLTKD QVVCLPVLPS PANSKAHTPP GNADITTEVP RMETATHQDQ NGQTTTNDVA FGTSAVTPDI PLQATHPHAE STLPNQEAKK EKRDP TGRKT NLDFQQYVFI NQMCYHLALP WYSKYFPYLA LIHTIILMVS SNFWFKYPKT CSKVEHFVSI LGKCFESPWT TKALSETACE DSEENKQRIT GAQTLPKHVS TSSDEGSPSA STPMINKTGF KFSAEKPVIE VPSMTILDKK DGEQAKALFE KVRKFRAHVE DSDLIYKLYV VQTLIKTAKF IFILCYTANF VNAISFEHVC KPKVEHLTGY EVFECTHNMA YMLKKLLISY ISIICVYGF I CLYTLFWLFR IPLKEYSFEK VREESSFSDI PDVKNDFAFL LHMVDQYDQL YSKRFGVFLS EVSENKLREI SLNHEWTFEK LRQHVS RNAQ DKQELHLFML SGVPDAVFDL TDLVLKLEL IPEAKIPAKI SQMTNLQELH LCHCPAKVEQ TAFSFLRDHL RCLHVKFTDV AEIPAWVYLL KNLRELYLIG NLNSENKMI GLESLREL RH LKILHVKS NL TKVPSNITDV APHLTKLV IH NDG TKLLVLN SLKKMMNVAE LELQNCELER IPHAIFSLSN LQELDLKSNN IRTIEEISF QHLKRLTCLK LWHNKIVAIP PSITHVKNLE SLYFSNNKLE
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SLPTAVFSLQ KLRCLDVSYN NISTPIEIG LLQNLQHLHI TGNKVDILPK QLFKCVKLRT  
LNLGQNCIAS LPEKISQLTQ LTQLELKGNC LDRLPAQLGQ CRMLKKSGLV VEDQLFDTLP  
LEVKEALNQD VNVPFANGI

**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.**

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### 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.

## Product Details

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)
Grade:	Crystallography grade

## Target Details

Target:	LRRC8D
Alternative Name:	Lrrc8d ( <a href="#">LRRC8D Products</a> )
Background:	<p>Volume-regulated anion channel subunit LRRC8D (Leucine-rich repeat-containing protein 5) (Leucine-rich repeat-containing protein 8D),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:29773801). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (By similarity). Plays a redundant role in the efflux of amino acids, such as aspartate, in response to osmotic stress family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E), channel characteristics depend on the precise subunit composition (By similarity). 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 (PubMed:29773801). 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 (By similarity). {ECO:0000250 UniProtKB:Q7L1W4, ECO:0000269 PubMed:29773801}.</p>
Molecular Weight:	98.1 kDa
UniProt:	<a href="#">Q8BGR2</a>

## 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.
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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>
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Restrictions:	For Research Use only
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## 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)