

Datasheet for ABIN3136608

DCLRE1C Protein (AA 1-705) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	DCLRE1C
Protein Characteristics:	AA 1-705
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DCLRE1C protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AlIcE®
Sequence:	<p>MSSFQGGMAE YPTISIDRFD RENLKARAYF LSHCHKDHMK GLRAPSLKRR LECSLKVFLY</p> <p>CSPVTKELLL TSPKYRFWEN RIITIEIETP TQISLVDEAS GEKEEVVVTLPAGHCPSV</p> <p>MFLFQGSNGT VLYTGDFRLA KGEASRMELL HSGGRVKDIQ SVYLDTTFCDFRQYQPSRE</p> <p>QCLRGILELV RSWVTRSPHH VVWLNCKAAY GYEYLFNTLS EELGVQVHVD KLD MFKNMPD</p> <p>ILHHLTTDRN TQIHACRHPK AECEFQWNKL PCGITSQNKT ALHTISIKPS TMWFGERTRK</p> <p>TNVIVRTGES SYRACFSFHS SFSEIKDFLS YICPVNVYPN VIPVGLTVDK VMDVLKPLCR</p> <p>SPQSVEPKYK PLGKLKRART IHL DSEEDDD LFDDPLPTPL RHKVPYQLTL QPELF SMKAL</p> <p>PLDQPELRQS PGGCKAESVW SPSLANFIDC EESNSDSGEE LETPPPSLQG GLGPSTLVQQ</p> <p>NADPDVDIPQ WEVFFKRRDE ITGECLEHLP SSIETGGSQS PKLCS DSPKL CSDSPKLCSD</p> <p>SDGDSTHISS QNSSQSTHIT DQGSQGWDSQ CDTVLLSSQE KSGGDSTSLN KGAYKPKLKE</p> <p>SISASQIEQD ALCPQDTHCD LKSRAEVNGA PCLVELDTLS GRKSPPEKTL LSSTRADSQS</p>

SSDFEIPSTP EALPTPEHL QCLYRKLATG QSIVVEKRKC SLLDS

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®).

Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: DCLRE1C

Alternative Name: Dclre1c ([DCLRE1C Products](#))

Background: Protein artemis (mArt) (EC 3.1.-.-) (DNA cross-link repair 1C protein) (SNM1-like protein),FUNCTION: Required for V(D)J recombination, the process by which exons encoding the antigen-binding domains of immunoglobulins and T-cell receptor proteins are assembled from individual V, (D), and J gene segments. V(D)J recombination is initiated by the lymphoid specific RAG endonuclease complex, which generates site specific DNA double strand breaks (DSBs). These DSBs present two types of DNA end structures: hairpin sealed coding ends and phosphorylated blunt signal ends. These ends are independently repaired by the non homologous end joining (NHEJ) pathway to form coding and signal joints respectively. This protein likely exhibits single-strand specific 5'-3' exonuclease activity in isolation, and may acquire endonucleolytic activity on 5' and 3' hairpins and overhangs when in a complex with PRKDC. The latter activity may be required specifically for the resolution of closed hairpins prior to the formation of the coding joint. May also be required for the repair of complex DSBs induced by ionizing radiation, which require substantial end-processing prior to religation by NHEJ. {ECO:0000269|PubMed:12504013, ECO:0000269|PubMed:12615897, ECO:0000269|PubMed:15699179}.

Molecular Weight: 78.8 kDa

UniProt: [Q8K4J0](#)

Pathways: [DNA Damage Repair](#)

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

Application Details

modifications.

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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