Datasheet for ABIN3136608

DCLRE1C Protein (AA 1-705) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	DCLRE1C
Protein Characteristics:	AA 1-705
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DCLRE1C protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MSSFQGQMAE YPTISIDRFD RENLKARAYF LSHCHKDHMK GLRAPSLKRR LECSLKVFLY CSPVTKELLL TSPKYRFWEN RIITIEIETP TQISLVDEAS GEKEEVVVTL LPAGHCPGSV MFLFQGSNGT VLYTGDFRLA KGEASRMELL HSGGRVKDIQ SVYLDTTFCD PRFYQIPSRE QCLRGILELV RSWVTRSPHH VVWLNCKAAY GYEYLFTNLS EELGVQVHVD KLDMFKNMPD ILHHLTTDRN TQIHACRHPK AEECFQWNKL PCGITSQNKT ALHTISIKPS TMWFGERTRK TNVIVRTGES SYRACFSFHS SFSEIKDFLS YICPVNVYPN VIPVGLTVDK VMDVLKPLCR SPQSVEPKYK PLGKLKRART IHLDSEEDDD LFDDPLPTPL RHKVPYQLTL QPELFSMKAL PLDQPELRQS PGGCKAESVW SPSLANFIDC EESNSDSGEE LETPPPSLQG GLGPSTLVQQ NADPDVDIPQ WEVFFKRRDE ITGECLEHLP SSIETGGSQS PKLCSDSPKL CSDSPKLCSD SDGDSTHISS QNSSQSTHIT DQGSQGWDSQ CDTVLLSSQE KSGGDSTSLN KGAYKPKLKE SISASQIEQD ALCPQDTHCD LKSRAEVNGA PCLVELDTLS GRKSPPEKTL LSSTRADSQS SSDFEIPSTP EAELPTPEHL QCLYRKLATG QSIVVEKRKC SLLDS

Product Details

	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Dclre1c Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	DCLRE1C
Alternative Name:	Dclre1c (DCLRE1C Products)
Background:	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:	79.8 kDa Including tag.
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 gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

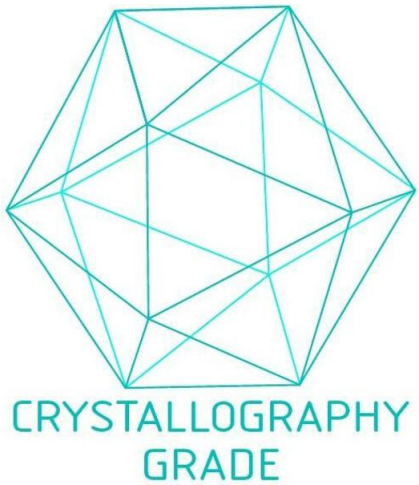

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process