Datasheet for ABIN3092566

FANCD2 Protein (AA 1-1451) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	FANCD2
Protein Characteristics:	AA 1-1451
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FANCD2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MVSKRRLSKS EDKESLTEDA SKTRKQPLSK KTKKSHIANE VEENDSIFVK LLKISGIILK TGESQNQLAV DQIAFQKKLF QTLRRHPSYP KIIEEFVSGL ESYIEDEDSF RNCLLSCERL QDEEASMGAS YSKSLIKLLL GIDILQPAII KTLFEKLPEY FFENKNSDEI NIPRLIVSQL KWLDRVVDGK DLTTKIMQLI SIAPENLQHD IITSLPEILG DSQHADVGKE LSDLLIENTS LTVPILDVLS SLRLDPNFLL KVRQLVMDKL SSIRLEDLPV IIKFILHSVT AMDTLEVISE LREKLDLQHC VLPSRLQASQ VKLKSKGRAS SSGNQESSGQ SCIILLFDVI KSAIRYEKTI SEAWIKAIEN TASVSEHKVF DLVMLFIIYS TNTQTKKYID RVLRNKIRSG CIQEQLLQST FSVHYLVLKD MCSSILSLAQ SLLHSLDQSI ISFGSLLYKY AFKFFDTYCQ QEVVGALVTH ICSGNEAEVD TALDVLLELV VLNPSAMMMN AVFVKGILDY LDNISPQQIR KLFYVLSTLA FSKQNEASSH IQDDMHLVIR KQLSSTVFKY KLIGIIGAVT MAGIMAADRS ESPSLTQERA NLSDEQCTQV TSLLQLVHSC SEQSPQASAL YYDEFANLIQ HEKLDPKALE WVGHTICNDF

QDAFVVDSCV VPEGDFPFPV KALYGLEEYD TQDGIAINLL PLLFSQDFAK DGGPVTSQES GQKLVSPLCL APYFRLLRLC VERQHNGNLE EIDGLLDCPI FLTDLEPGEK LESMSAKERS FMCSLIFLTL NWFREIVNAF CQETSPEMKG KVLTRLKHIV ELQIILEKYL AVTPDYVPPL GNFDVETLDI TPHTVTAISA KIRKKGKIER KQKTDGSKTS SSDTLSEEKN SECDPTPSHR GQLNKEFTGK EEKTSLLLHN SHAFFRELDI EVFSILHCGL VTKFILDTEM HTEATEVVQL GPPELLFLLE DLSQKLESML TPPIARRVPF LKNKGSRNIG FSHLQQRSAQ EIVHCVFQLL TPMCNHLENI HNYFQCLAAE NHGVVDGPGV KVQEYHIMSS CYQRLLQIFH GLFAWSGFSQ PENQNLLYSA LHVLSSRLKQ GEHSQPLEEL LSQSVHYLQN FHQSIPSFQC ALYLIRLLMV ILEKSTASAQ NKEKIASLAR QFLCRVWPSG DKEKSNISND QLHALLCIYL EHTESILKAI EEIAGVGVPE LINSPKDASS STFPTLTRHT FVVFFRVMMA ELEKTVKKIE PGTAADSQQI HEEKLLYWNM AVRDFSILIN LIKVFDSHPV LHVCLKYGRL FVEAFLKQCM PLLDFSFRKH REDVLSLLET FQLDTRLLHH LCGHSKIHQD TRLTQHVPLL KKTLELLVCR VKAMLTLNNC REAFWLGNLK NRDLQGEEIK SQNSQESTAD ESEDDMSSQA SKSKATEDGE EDEVSAGEKE QDSDESYDDS D

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

Product Details

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:	FANCD2
Alternative Name:	FANCD2 (FANCD2 Products)
Background:	Fanconi anemia group D2 protein (Protein FACD2),FUNCTION: Required for maintenance of chromosomal stability. Promotes accurate and efficient pairing of homologs during meiosis. Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing. May participate in S phase and G2 phase checkpoint activation upon DNA damage. Plays a role in preventing breakage and loss of missegregating chromatin at the end of cell division, particularly after replication stress. Required for the targeting, or stabilization, of BLM to non-centromeric abnormal structures induced by replicative stress. Promotes BRCA2/FANCD1 loading onto damaged chromatin. May also be involved in B-cell immunoglobulin isotype switching. {ECO:0000269|PubMed:11239453, ECO:0000269|PubMed:11239454, ECO:0000269|PubMed:12086603, ECO:0000269|PubMed:12239151, ECO:0000269|PubMed:14517836, ECO:0000269|PubMed:15115758, ECO:0000269|PubMed:15314022, ECO:0000269|PubMed:15377654, ECO:0000269|PubMed:15454491, ECO:0000269|PubMed:15650050, ECO:0000269|PubMed:15661754, ECO:0000269|PubMed:15671039, ECO:0000269|PubMed:19465921,

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	ECO:0000269|PubMed:30335751}.
Molecular Weight:	164.1 kDa
UniProt:	Q9BXW9
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 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