Datasheet for ABIN3134651

RAD50 Protein (AA 1-1312) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	RAD50
Protein Characteristics:	AA 1-1312
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAD50 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MSRIEKMSIL GVRSFGIEDK DKQIISFFSP LTILVGPNGA GKTTIIECLK YICTGDFPPG TKGNTFVHDP KVAQETDVRA QIRLQFRDVN GEMVAVHRSM LCSQKNKKTE FKTLEGVITR MKHGEKVSLS SKCAEIDREM ISCLGVSKSV LNNVIFCHQE DSNWPLSEGK ALKQKFDEIF SATRYIKALD TLRQVRQTQG QKVKECQTEL KYLKQNKEKA CEIRDQITSK EAQLASSQEI VRSYEDELEP LKNRLKEIEH NLSKIMKLDN EIKALESRKK QMEKDNSELE QKMEKVFQGT DEQLNDLYHN HQRTVREKER RLVDCQRELE KLNKEARLLN QEKAELLVEQ GRLQLQADRH QEHIRARDSL IQSLATHLEL DGFERGPFSE RQIKNFHELV KERQEREAKT ASQLLSDLTD KEALKQRQLD ELRDRKSGLG RTIELKTEIL TKKQSELRHV RSELQQLEGS SDRILELDQE LTKAERELSK AEKNSSIETL KAEVMSLQNE KADLDRSLRK LDQEMEQLNH HTTTRTQMEM LTKDKTDKDE QIRKIKSRHS DELTSLLGYF PNKKQLEDWL HSKSKEINQT RDRLAKLNKE LASAEQNKNH INNELKKKEE QLSSYEDKLF DVCGSQDLES DLGRLKEEIE KSSKQRAMLA GATAVYSQFI TQLTDENQSC CPVCQRVFQT EAELQEVISD LQSKLRLAPD KLKSTESELK

KKERRRDEML GLVPVRQSII DLKEKEIPEL RNRLQSVNRD IQRLKNDIEE QETLLGTIMP EEESAKVCLT DVTIMERFQM ELKDVERKIA QQAAKLQGVD LDRTVQQVNQ EKQEKQHRLD TVTSKIELNR KLIQDQQEQI QHLKSKTNEL KSEKLQIATN LQRRQQMEEQ SVELSTEVQS LNREIKDAKE QISPLETALE KLQQEKEELI HRKHTSNKMA QDKINDIKEK VKNIHGYMKD IENYIQDGKD DYKKQKETEL NGVAVQLNEC EKHREKINKD MGTMRQDIDT QKIQERWLQD NLTLRKRRDE LKEVEEEPKQ HLKEMGQMQV LQMKNEHQKL EENIDTIKRN HSLALGRQKG YEDEILHFKK ELREPQFRDA EEKYREMMIV MRTTELVNKD LDIYYKTLDQ AIMKFHSMKM EEINKIIRDL WRSTYRGQDI EYIEIRSDAD ENVSASDKRR NYNYRVVMLK GDTALDMRGR CSAGQKVLAS LIIRLALAET FCLNCGILAL DEPTTNLDRE NIESLAHALV EIIKSRSQQR NFQLLVITHD EDFVELLGRS EYVEKFYRVK KNMDQCSEIV KCSISSLGSY VH

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 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 -

Product Details

	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.
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)

Target Details

Target:	RAD50
Alternative Name:	Rad50 (RAD50 Products)
Background:	DNA repair protein RAD50 (mRad50) (EC 3.6.-.-),FUNCTION: Component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates, and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11 to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation (By similarity). {ECO:0000250, ECO:0000269|PubMed:10377422, ECO:0000269|PubMed:12208847}.
Molecular Weight:	153.5 kDa

Target Details

UniProt:	P70388
Pathways:	DNA Damage Repair, Protein targeting to Nucleus

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. 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)