

Datasheet for ABIN3134634

RAD54L Protein (AA 1-747) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	RAD54L
Protein Characteristics:	AA 1-747
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAD54L protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MRRSLAPSQL ARRKPEDRSS DDEDWQPGTV TPKKRKSSSE TQVQECFLSP FRKPLTQLLN RPPCLDSSQH EAFIRSILSK PFKVPIPNYQ GPLGSRALGL KRAGVRRALH DPLEEGALVL YEPPPLSAHD QLKLDKEKLP VHVVDPILS KVLRRPHQREG VKFLWECVTS RRIPGSHGCI MADEMGLGKT LQCITLMWTL LRQSPECKPE IEKAVVVSPS SLVKNWYNEV EKWLGGRIQP LAIDGGSKDE IDRKLEGFMN QRGARVPSP I LIISYETFRL HVGVLKKG NV GLVICDEGHR LKNSNQTYQ ALDSLNTSRR VLISGTPIQN DLLEYFSLVH FVNSGILGTA HEFKKHFE LP ILKSRDAAAS EADRQRGEER LRELIGIVNR CLIRRTSDIL SKYLPVKIEQ VVCCRLTPLQ TELYKRFLRQ AKPEEELREG KMSVSSLSSI TSLKKLCNHP ALIYDKCVAE EDGFEGTLGI FPPGYNSKAV EPQLSGKMLV LDYILAVTRS RSSDKVVLVS NYQTLDLFE KLCRVRRYLY VRLDGTMSIK KRAKVVERFN SPSSPDFVFM LSSKAGGCGL NLIGANRLVM FDPDWN PAND EQAMARVWRD GQKKICYIYR LLSAGTIEEK IFQRQSHKKA LSSCVVDEEQ DVERHFSLGE LKELFTLDEA SLSDTHDRLH CRRCVNNRQV WPPPDGSDCT SDLAQWNHST DKRGLQDEV L
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QAAWDASSTA ITFVFHQRSR EEQRGLH

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 Rad54l 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 receipt 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.

Product Details

Grade: Crystallography grade

Target Details

Target: RAD54L

Alternative Name: Rad54l ([RAD54L Products](#))

Background: Involved in DNA repair and mitotic recombination. Functions in the recombinational DNA repair (RAD52) pathway. Dissociates RAD51 from nucleoprotein filaments formed on dsDNA. Could be involved in the turnover of RAD51 protein-dsDNA filaments (By similarity). Deficient mice also show significantly shorter telomeres than wild-type controls, indicating that the protein activity plays an essential role in telomere length maintenance in mammals. Deficiency also resulted in an increased frequency of end-to-end chromosome fusions involving telomeres compared to the controls, suggesting a putative role in telomere capping. Non-homologous end joining (NHEJ) and homologous recombination (HR) represent the two major pathways of DNA double-strand break (DSB) repair in eukaryotic cells. LIG4 and RAD54L cooperate to support cellular proliferation, repair spontaneous DSBs, and prevent chromosome and single chromatid aberrations. {ECO:0000250, ECO:0000269|PubMed:10209103, ECO:0000269|PubMed:10757799, ECO:0000269|PubMed:12218123, ECO:0000269|PubMed:12531026, ECO:0000269|PubMed:12548566, ECO:0000269|PubMed:12897131, ECO:0000269|PubMed:15175260, ECO:0000269|PubMed:9108475}.

Molecular Weight: 85.6 kDa Including tag.

UniProt: [P70270](#)

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: 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.

Application Details

Restrictions: For Research Use only

Handling

Format:	Liquid
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