

Recombinant Human Rad21 protein ab152647

1 Image

Description

Product name	Recombinant Human Rad21 protein
Expression system	Wheat germ
Accession	<u>O60216</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MFYAHFVLSKRGPLAKIWLAAHWDKKLTKAHVFEKNLES SVESIISPKVK MALRTSGHLLLGVVRIYHRKAKYLLADCNEAFIKKMAFRP GVVDLPEEN REAAYNAILTPEEFHDFDQPLPDLDIDVAQQFSLNQSRV EETMREEVG NISILQENDFGDFGMDDREIMREGSAFEDDDMLVSTTTSN LLESEQSTS NLNEKINHLEYEDQYKDDNFGEGNDGGILDDKLISNNDGGI FDDPPALSE AGVMLPEQPAHDDMDEDDNVSMGGPDSPDSVDPVEPM PTMTDQTTLPNE EEAFALEPIDITVKETKAKRKRKLIVDSVKELDSKTIRAQLS DYSDIVTT LDLAPPTKKLMMWKETGGVEKLFSLPAQPLWNNRLLKLF TRCLTPLVPED LRKRRKGGEADNLDEFLKEFENPEVPREDQQQQHQQRD VIDEPIIEEPSR LQESVMEASRTNIDESAMPPPPQGVKRKAGQIDPEPVM PPQQVEQMEIP PVELPPEEPPNICQLIPELELLPEKEKEKEKEKEDDEEEE DEDASGGDQD QEERRWNKRTQQMLHGLQRALAKTGAESISLLELCRNTN RKQAAAKFYSF LVLKKQQAIELTQEEPYSIDIATPGPRFHII
Predicted molecular weight	98 kDa including tags
Amino acids	1 to 631
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab152647** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

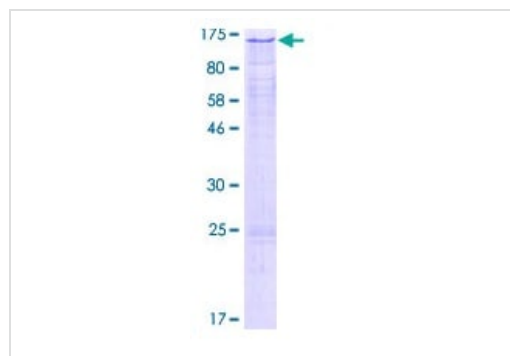
Applications	Western blot
	ELISA
	SDS-PAGE
Form	Liquid
Additional notes	

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl
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General Info

Function	Cleavable component of the cohesin complex, involved in chromosome cohesion during cell cycle, in DNA repair, and in apoptosis. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At metaphase-anaphase transition, this protein is cleaved by separase/ESPL1 and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Also plays a role in apoptosis, via its cleavage by caspase-3/CASP3 or caspase-7/CASP7 during early steps of apoptosis: the C-terminal 64 kDa cleavage product may act as a nuclear signal to initiate cytoplasmic events involved in the apoptotic pathway.
Sequence similarities	Belongs to the rad21 family.
Domain	The C-terminal part associates with the head of SMC1A, while the N-terminal part binds to the head of SMC3.
Post-translational modifications	Cleaved by separase/ESPL1 at the onset of anaphase. Cleaved by caspase-3 and caspase-7 at the beginning of apoptosis. The cleavage by ESPL1 and caspase-3 take place at different sites. Phosphorylated; becomes hyperphosphorylated in M phase of cell cycle. The large dissociation of cohesin from chromosome arms during prophase may be partly due to its phosphorylation by PLK.
Cellular localization	Nucleus. Chromosome. Chromosome > centromere. Associates with chromatin. Before prophase it is scattered along chromosome arms. During prophase, most of cohesin complexes dissociate from chromatin probably because of phosphorylation by PLK, except at centromeres, where cohesin complexes remain. At anaphase, it is cleaved by separase/ESPL1, leading to the dissociation of the complex from chromosomes, allowing chromosome separation. Once cleaved by caspase-3, the C-terminal 64 kDa cleavage product translocates to the cytoplasm, where it may trigger apoptosis.



12.5% SDS-PAGE analysis of ab152647 stained with Coomassie Blue.

SDS-PAGE - Recombinant Human Rad21 protein
(ab152647)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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