

Recombinant human Rad51 protein (Active) ab63808

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製品の詳細

製品名	Recombinant human Rad51 protein (Active)
生理活性	Retain nuclear filament forming and strand-exchange activity as well as interaction with Rad52.
精製度	> 95 % SDS-PAGE. Highly purified by several steps of chromatography.
発現系	Escherichia coli
アクセッション番号	Q06609
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human
配列	<div> GSHMAMQMQQL EANADTSVEE ESFGPQPISR LEQCGINAND VKKLEEAGFH TVEAVAYAPK KELINIKGIS EAKADKILAE AAKLVPMGFT TATEFHQRRS EIIQITTGSK ELDKLLQGGI ETGSITEMFG EFRTGKTQIC HTLAVTCQLP IDRGGGEGKA MYIDTEGTFR PERLLAVAER YGLSGSDVLD NVAYARAFNT DHQTQLLYQA SAMMVESRYA LLIVDSATAL YRTDYSGRGE LSARQMHLAR FLRMLLRLAD EFGVAVVITN QVVAQVDGAA MFAADPKKPI GGNIIAHAST TRLYLRKGRG ETRICKIYDS PCLPEAEAMF AINADGVGDA KD </div>

予測される分子量	37 kDa
領域	1 to 339
配列の追加情報	Gly Ser His at the N-terminal

特性

Our [Abpromise guarantee](#) covers the use of **ab63808** in the following tested applications.

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

アプリケーション	Functional Studies
	SDS-PAGE

	Western blot
製品の状態	Liquid
備考	<p>This protein can be used for:</p> <ol style="list-style-type: none"> 1) Studies on homologous recombination mechanism and SOS response. 2) Useful in the screening using probe from library by promotion of DNA hybridization. 3) Facilitate DNA observation by electron microscope due to nucleofilament formation with DNA.
前処理および保存	
保存方法および安定性	<p>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</p> <p>pH: 6</p> <p>Constituents: 0.75% Potassium chloride, 0.0154% DTT, 0.316% Tris HCl, 0.0146% EDTA, 10% Glycerol (glycerin, glycerine)</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
関連情報	
機能	Plays an important role in homologous strand exchange, a key step in DNA repair through homologous recombination. Binds to single and double-stranded DNA and exhibits DNA-dependent ATPase activity. Catalyzes the recognition of homology and strand exchange between homologous DNA partners to form a joint molecule between a processed DNA break and the repair template. Binds to single-stranded DNA in an ATP-dependent manner to form nucleoprotein filaments which are essential for the homology search and strand exchange (PubMed:26681308). Part of a PALB2-scaffolded HR complex containing BRCA2 and RAD51C and which is thought to play a role in DNA repair by HR. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51C and XRCC3.
組織特異性	Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.
関連疾患	<p>Breast cancer</p> <p>Mirror movements 2</p> <p>Defects in RAD51 are found in a patient with microcephaly, mental retardation without bone marrow failure and pediatric cancers.</p>
配列類似性	<p>Belongs to the RecA family. RAD51 subfamily.</p> <p>Contains 1 HhH domain.</p>
ドメイン	The nuclear localization may reside in the C-terminus (between 259 and 339 AA).
翻訳後修飾	<p>Ubiquitinated by the SCF(FBXO18) E3 ubiquitin ligase complex, regulating RAD51 subcellular location and preventing its association with DNA.</p> <p>Phosphorylated. Phosphorylation of Thr-309 by CHEK1 may enhance association with chromatin at sites of DNA damage and promote DNA repair by homologous recombination.</p> <p>Phosphorylation by ABL1 inhibits function.</p>
細胞内局在	Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion matrix. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage. DNA damage induces an increase in nuclear levels. Together with FIGL1, redistributed in discrete nuclear DNA damage-induced foci after ionizing radiation (IR) or camptothecin (CPT) treatment. Accumulated at sites of DNA

damage in a SPIDR-dependent manner.

画像



SDS-PAGE - Recombinant human Rad51 protein
(ab63808)

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