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Rad51 (179 - 190)
Synthetic Peptide
Catalog # SP2250a

Specification

Rad51 (179 - 190) - Product Information

Primary Accession	O77507
Other Accession	Q08297, Q06609, P70099, Q2KJ94, P37383
Sequence	**NH2-GLSGSDVLDNVA-COOH**

Rad51 (179 - 190) - Additional Information

Gene ID 100008661

Other Names
DNA repair protein RAD51 homolog 1, RAD51

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Rad51 (179 - 190) - Protein Information

Name RAD51

Function
Plays an important role in homologous strand exchange, a key step in DNA repair through homologous recombination (HR). Binds to single-stranded DNA in an ATP-dependent manner to form nucleoprotein filaments which are essential for the homology search and strand exchange. 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. Recruited to resolve stalled replication forks during replication stress. 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. Also involved in interstrand cross- link repair.

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q06609}. Cytoplasm {ECO:0000250|UniProtKB:Q06609}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q06609}. Mitochondrion matrix {ECO:0000250|UniProtKB:Q06609}. Chromosome {ECO:0000250|UniProtKB:Q06609}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q06609} Note=Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA

damage. DNA damage induces an increase in nuclear levels. Together with FIGNL1, 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. Recruited at sites of DNA damage in a MCM9-MCM8-dependent manner. Recruited at sites of DNA damage following interaction with TOPBP1 in S-phase. Colocalizes with ERCC5/XPG to nuclear foci in S phase (By similarity). {ECO:0000250|UniProtKB:Q06609}

Rad51 (179 - 190) - Images