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Anti-RAD51AP1 Antibody (aa340-352)

Goat Anti Human Polyclonal Antibody
Catalog # ALS17909

Product Information

Application	IHC-P, E
Primary Accession	Q96B01
Predicted	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	38457

Additional Information

Gene ID	10635
Alias Symbol	RAD51AP1
Other Names	RAD51AP1, PIR51, RAD51-associated protein 1, RAD51 associated protein 1, RAD51-interacting protein
Target/Specificity	Human RAD51AP1. This antibody is expected to recognise both reported isoforms.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-RAD51AP1 Antibody (aa340-352) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAD51AP1 {ECO:0000303|PubMed:16990250, ECO:0000312|HGNC:HGNC:16956}
Function	Structure-specific DNA-binding protein involved in DNA repair by promoting RAD51-mediated homologous recombination (PubMed:17996710, PubMed:17996711, PubMed:20871616, PubMed:25288561, PubMed:26323318). Acts by stimulating D-Loop formation by RAD51: specifically enhances joint molecule formation through its structure-specific DNA interaction and its interaction with RAD51 (PubMed:17996710, PubMed:17996711). Binds single-stranded DNA (ssDNA), double-stranded DNA (dsDNA) and secondary DNA structures, such as D-loop structures: has a strong preference for branched-DNA structures that are obligatory intermediates during joint molecule formation (PubMed:17996710, PubMed:17996711, PubMed:22375013, PubMed:9396801). Cooperates with WDR48/UAF1 to stimulate RAD51-mediated homologous recombination: both WDR48/UAF1 and RAD51AP1 have coordinated role in DNA-binding during homologous recombination and DNA repair (PubMed:27239033,

	PubMed:27463890, PubMed:32350107). WDR48/UAF1 and RAD51AP1 also have a coordinated role in DNA-binding to promote USP1-mediated deubiquitination of FANCD2 (PubMed:31253762). Also involved in meiosis by promoting DMC1-mediated homologous meiotic recombination (PubMed:21307306). Key mediator of alternative lengthening of telomeres (ALT) pathway, a homology-directed repair mechanism of telomere elongation that controls proliferation in aggressive cancers, by stimulating homologous recombination (PubMed:31400850). May also bind RNA; additional evidence is however required to confirm RNA-binding in vivo (PubMed:9396801).
Cellular Location	Chromosome. Nucleus Chromosome, telomere. Note=Colocalizes with RAD51 to multiple nuclear foci (By similarity). Colocalizes with DMC1 on meiotic chromatin (By similarity) {ECO:0000250|UniProtKB:Q8C551}
Tissue Location	Highly expressed in testis and thymus (PubMed:9396801). Lower levels in colon and small intestine (PubMed:9396801). Little or no expression in spleen, prostate, ovary and peripheral blood leukocytes (PubMed:9396801)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.