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PIR51 / RAD51AP1 Antibody (C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2288a

Specification

PIR51 / RAD51AP1 Antibody (C-Term) - Product Information

Application	**IHC, E**
Primary Accession	Q96B01
Other Accession	NP_001124334.1, NP_006470, 10635
Reactivity	**Human**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**38457**

PIR51 / RAD51AP1 Antibody (C-Term) - Additional Information

Gene ID 10635

Other Names
RAD51-associated protein 1, RAD51-interacting protein, R51A1

Dilution
IHC~~1:100~500
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PIR51 / RAD51AP1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

PIR51 / RAD51AP1 Antibody (C-Term) - 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:<a href="http://www.uniprot.org/citations/17996711"

target="_blank">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 evidences are 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)

PIR51 / RAD51AP1 Antibody (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PIR51 / RAD51AP1 Antibody (C-Term) - Images

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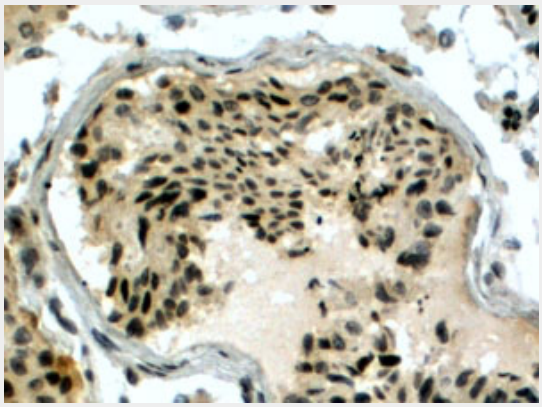

AF2288a (4 µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.

PIR51 / RAD51AP1 Antibody (C-Term) - Background

This antibody is expected to recognise both reported isoforms.

PIR51 / RAD51AP1 Antibody (C-Term) - References

A novel nucleic acid-binding protein that interacts with human rad51 recombinase. Kovalenko OV, Golub EI, Bray-Ward P, Ward DC, Radding CM. Nucleic Acids Res. 1997 Dec 15;25(24):4946-53. PMID: 9396801