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# DMC1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9329a

## Product Information

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|---|---|
| **Application** | WB, IHC-P, FC, E |
| **Primary Accession** | Q14565 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB23872 |
| **Calculated MW** | 37681 |
| **Antigen Region** | 1-30 |

## Additional Information

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| **Gene ID** | 11144 |
| **Other Names** | Meiotic recombination protein DMC1/LIM15 homolog, DMC1, DMC1H, LIM15 |
| **Target/Specificity** | This DMC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human DMC1. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | DMC1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | DMC1 {ECO:0000303\|PubMed:8602360, ECO:0000312\|HGNC:HGNC:2927} |
| **Function** | Homologous DNA recombinase that catalyzes strand exchange during meiotic recombination (PubMed:15164066, PubMed:21307306, PubMed:26976601). Specifically required for meiotic recombination, |

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| | facilitating the search and repair of DNA using the homolog rather than the sister chromatid, and can tolerate mismatches in heteroduplex DNA, unlike the higher-fidelity RAD51 (PubMed:15164066, PubMed:26976601). |
| **Cellular Location** | Chromosome. Nucleus. Note=Binds single-stranded DNA (ssDNA) near the break site. {ECO:0000250\|UniProtKB:Q61880} |

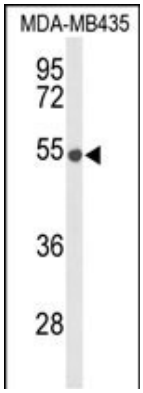
## Background

DMC1 is essential for meiotic homologous recombination. Genetic recombination in meiosis plays an important role in generating diversity of genetic information. The product of this protein is structurally and evolutionary related to the products of the yeast RAD51 and E. coli RecA genes.

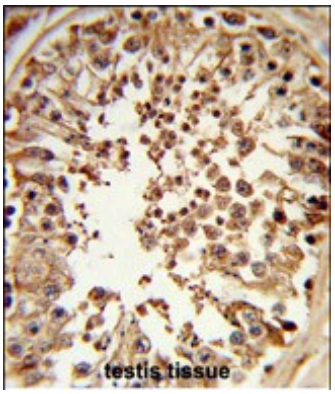
## References


Volodin,A.A. J. Biol. Chem. 284 (3), 1495-1504 (2009)
Hikiba,J.FEBS J. 276 (2), 457-465 (2009)
Hikiba,J. Nucleic Acids Res. 36 (12), 4181-4190 (2008)


## Images

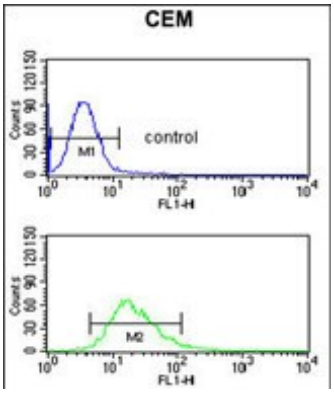



Western blot analysis of DMC1 Antibody (N-term) (Cat. #AP9329a) in MDA-MB435 cell line lysates (35ug/lane). DMC1 (arrow) was detected using the purified Pab.




Formalin-fixed and paraffin-embedded human testis tissue reacted with DMC1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

DMC1 Antibody (N-term) (Cat. #AP9329a) flow cytometric analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.




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