

# AID Recombinant Rabbit mAb

Catalog # AP100309

## Product Information

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| <b>Application</b>             | WB, IHC-P, IHC-F, IF, IP, E                                                                                                                                                                                                                                                                                                                                           |
| <b>Primary Accession</b>       | <a href="#">Q9GZX7</a>                                                                                                                                                                                                                                                                                                                                                |
| <b>Other Accession</b>         | <a href="#">Q9GZX7</a>                                                                                                                                                                                                                                                                                                                                                |
| <b>Host</b>                    | Rabbit                                                                                                                                                                                                                                                                                                                                                                |
| <b>Clonality</b>               | Recombinant                                                                                                                                                                                                                                                                                                                                                           |
| <b>Calculated MW</b>           | 23954                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Isotype</b>                 | IgG                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Purity</b>                  | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                        |
| <b>Buffer</b>                  | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                     |
| <b>SIMILARITY</b>              | Belongs to the cytidine and deoxycytidylate deaminase family.                                                                                                                                                                                                                                                                                                         |
| <b>DISEASE</b>                 | Defects in AICDA are the cause of immunodeficiency with hyper-IgM type 2 (HIGM2) [MIM:605258]. A rare immunodeficiency syndrome characterized by normal or elevated serum IgM levels with absence of IgG, IgA, and IgE. It results in a profound susceptibility to bacterial infections.                                                                              |
| <b>Background Descriptions</b> | This gene encodes a RNA-editing deaminase that is a member of the cytidine deaminase family. The protein is involved in somatic hypermutation, gene conversion, and class-switch recombination of immunoglobulin genes. Defects in this gene are the cause of autosomal recessive hyper-IgM immunodeficiency syndrome type 2 (HIGM2). [provided by RefSeq, Feb 2009], |

## Additional Information

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| <b>Gene ID</b>     | 57379                                                                                                                                                                                                                            |
| <b>Other Names</b> | AID; ARP2; CDA2; HEL-S-284; HIGM2; AICDA_HUMAN; AICDA; Activation-induced cytidine deaminase (AID); Cytidine aminohydrolase; 3.5.4.38; AICDA_MOUSE; activation induced cytidine deaminase; activation-induced cytidine deaminase |
| <b>Dilution</b>    | IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10000,IP=1:50-200                                                                                                                                           |
| <b>Storage</b>     | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.                                  |

## Protein Information

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| <b>Name</b>     | AICDA |
| <b>Synonyms</b> | AID   |

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|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Function</b>          | Single-stranded DNA-specific cytidine deaminase. Involved in somatic hypermutation (SHM), gene conversion, and class-switch recombination (CSR) in B-lymphocytes by deaminating C to U during transcription of Ig-variable (V) and Ig-switch (S) region DNA. Required for several crucial steps of B-cell terminal differentiation necessary for efficient antibody responses (PubMed: <a href="#">18722174</a> , PubMed: <a href="#">21385873</a> , PubMed: <a href="#">21518874</a> , PubMed: <a href="#">27716525</a> ). May also play a role in the epigenetic regulation of gene expression by participating in DNA demethylation (PubMed: <a href="#">21496894</a> ). |
| <b>Cellular Location</b> | Nucleus. Cytoplasm, cytosol Note=Predominantly cytosolic (PubMed:21385873). In the presence of MCM3AP/GANP, relocalizes to the nucleus (By similarity) {ECO:0000250   UniProtKB:Q9WVE0, ECO:0000269   PubMed:21385873}                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Tissue Location</b>   | Strongly expressed in lymph nodes and tonsils.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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