10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AID Recombinant Rabbit mAb

Catalog # AP100309

Product Information

Application	WB, IHC-P, IHC-F, IF, IP, E
Primary Accession	Q9GZX7
Other Accession	Q9GZX7
Reactivity	Human
Host	Rabbit
Clonality	Recombinant
Calculated MW	23954
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the cytidine and deoxycytidylate deaminase family.
DISEASE	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.
Background Descriptions	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

Gene ID	57379
Other Names	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
Dilution	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
Storage	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

Name	AICDA

Synonyms	AID
Function	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:18722174, PubMed:21385873, PubMed:21518874, PubMed:27716525). May also play a role in the epigenetic regulation of gene expression by participating in DNA demethylation (PubMed:21496894).
Cellular Location	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}
Tissue Location	Strongly expressed in lymph nodes and tonsils.

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