



Qty: 100 µg/200 µL

Mouse anti-AID

Catalog No. 39-2500

Lot No.

## Mouse anti-AID

### FORM

This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

**CLONE:** ZA001

**ISOTYPE:** Mouse IgG<sub>1</sub>-kappa

### IMMUNOGEN

Synthetic peptide derived from the C-terminal region of mouse and rat AID (activation-induced cytidine deaminase, AICDA), which is 92% homologous to human

### SPECIFICITY

This antibody is specific for the AID protein. On Western blots, it identifies the target band at ~20-24 kDa.

### REACTIVITY

Reactivity has been confirmed with human Daudi B-lymphoblastoid and Ramos cell lysates by Western blotting, paraffin-embedded human tonsil tissue by immunohistochemistry, and EBV-transformed human B cell extracts by immunoprecipitation and immunofluorescence. Based on amino acid sequence homology, reactivity with mouse and rat is expected.

Sample	ELISA	Western Blotting	Immuno-histochemistry (paraffin)*	Immuno-fluorescence	Immuno-precipitation
Human	ND	+++	+++	++	++
Mouse	ND	ND	ND	ND	ND
Rat	ND	ND	ND	ND	ND
Immunogen	+++	+++	N/A	N/A	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.1-1.0 µg/mL  
**Western blotting:** 0.5-1.0 µg/mL  
**Immunohistochemistry (paraffin)\*:** 5-10 µg/mL  
**Immunofluorescence:** 1 µg/mL  
**Immunoprecipitation:** 10 µg/mL

\*Heat Induced Epitope Retrieval (HIER) with citrate buffer is required for immunohistochemistry of paraffin-embedded tissues.

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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**BACKGROUND**

Activation-induced Cytidine Deaminase (AID or AICDA) is an essential enzyme involved with the regulation of class switch recombination (CSR), somatic hypermutation (SHM), and gene conversion (GC). AID is a member of the RNA-editing deaminase family and may play a role in genetic events in the germinal center B cell.<sup>1</sup> Deficiency of AID in Hyper-IgM syndrome (HIGM2) patients result in absence of immunoglobulin class switch recombinations, lack of immunoglobulin somatic hypermutations, and lymph node hyperplasia, mediated by the presence of giant germinal centers. AID is mainly expressed in lymph nodes and tonsils, and is localized to the cytoplasm, but is observed in the nucleus after DNA damage.

AID protein is detected in germinal center centroblast and germinal center derived lymphomas (Burkitt lymphoma), but not in pre-germinal center B-cells or post-germinal center neoplasms (B-cell chronic lymphocytic leukemia and multiple myeloma).<sup>2</sup>

**REFERENCES**

1. Muramatsu M, et al. *J Biol Chem* 274(26):18470-18476, 1999.
2. Pasqualucci L, et al. *Blood* 104(10):3318-3325, 2004.

**RELATED PRODUCTS**

<b>Product</b>	<b>Conjugate</b>	<b>Cat. No.</b>
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

<b>Conjugate</b>	<b>ZyMAX<sup>™</sup> Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX<sup>™</sup> Goat x Mouse IgG (H+L)</b>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy <sup>™</sup> 3	81-6115	81-6515
Cy <sup>™</sup> 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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