

AID (30F12) Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 24	Source/Isotype: Rabbit IgG	UniProt ID: #Q9GZX7	Entrez-Gene Id: 57379
Product Usage Information	Application Western Blotting Immunoprecipitation		Dilution 1:1000 1:50			
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.					
Specificity/Sensitivity	AID (30F12) Rabbit mAb detects endogenous levels of total AID protein.					
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu165 of human AID.					
Background	<p>Activation-induced cytidine deaminase (AID) is thought to modify RNA due to its high homology to the RNA editing enzyme APOBEC-1. This function, however, has not been confirmed in <i>in vitro</i> studies, which show that AID has significant cytidine deaminase activity, and that this activity is blocked by zinc chelation (1).</p> <p>The B cell immune system must specifically recognize several infectious agents, which vastly outnumber immunoglobulin gene segments present in a given organism. Mechanisms such as somatic hypermutation, isotype switch recombination and gene conversion introduce diversity and specificity to the immune system. Analysis of mouse models and patients with AID deficiency has established a link between all three of these mechanisms and AID function (2). 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) (3).</p>					
Background References	<p>1. Muramatsu, M. et al. (1999) <i>J. Biol. Chem.</i> 274, 18470-18476.</p> <p>2. Reynaud, C.A. et al. (2003) <i>Nat. Immunol.</i> 7, 631-638.</p> <p>3. Pasqualucci, L. et al. (2004) <i>Blood</i> 104, 3318-3325.</p>					

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: Human
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