**BACKGROUND**

Activation-induced Cytidine Deaminase (AID, HIgM-2) is a 198-amino acid, RNA-editing enzyme that contains a conserved cytidine deaminase motif and plays an important role in B-cell terminal differentiation. AID is expressed in germinal center B cells and contributes to the production of neutralizing antibodies IgG, IgA, and IgE. Hyper-IgM syndrome (HIGM2) patients that have deficient levels of AID show the absence of immunoglobulin class switch recombination (CSR), lack of immunoglobulin somatic hypermutations, and lymph node hyperplasia mediated by the presence of giant germinal centers. Furthermore, AID−/− mice are defective in CSR and also show a hyper-IgM phenotype, characterized by enlarged germinal centers containing active B cells. AID thus appears to be required in several stages of B-cell terminal differentiation that are necessary for efficient antibody responses such as B cell proliferation, immunoglobulin somatic hypermutations and CSR.

**CHROMOSOMAL LOCATION**

Genetic locus: AICDA (human) mapping to 12p13.31; Aicda (mouse) mapping to 6 F1.

**SOURCE**

AID (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AID of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14680 P, (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

AID (C-20) is recommended for detection of AID of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AID (C-20) is also recommended for detection of AID in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AID siRNA (h): sc-42729, AID siRNA (m): sc-42730, AID shRNA Plasmid (h): sc-42729-SH, AID shRNA Plasmid (m): sc-42730-SH, AID shRNA (h) Lentiviral Particles: sc-42729-V and AID shRNA (m) Lentiviral Particles: sc-42730-V.

Molecular Weight of AID: 24 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Hep G2 cell lysate: sc-2227 or Ramos cell lysate: sc-2216.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**DATA**

AID (C-20): sc-14680. Western blot analysis of AID expression in Daudi whole cell lysate.

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Try AID (2D3): sc-101417, our highly recommended monoclonal alternative to AID (C-20).