

# ADA Antibody (C-term)

Mouse Monoclonal Antibody (Mab) Catalog # AM2128b

### Specification

# ADA Antibody (C-term) - Product Information

Application Primary Accession Other Accession	<b>WB,E</b> <u>P00813</u> <u>NP_000013.2</u>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	lgG1
Antigen Region	287-314

# ADA Antibody (C-term) - Additional Information

Gene ID 100

**Other Names** Adenosine deaminase, Adenosine aminohydrolase, ADA, ADA1

Target/Specificity

This ADA antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 287-314 amino acids from the C-terminal region of human ADA.

Dilution WB~~1:500~1000 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ADA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# ADA Antibody (C-term) - Protein Information

Name ADA

Synonyms ADA1



**Function** Catalyzes the hydrolytic deamination of adenosine and 2- deoxyadenosine (PubMed:<u>16670267</u>, PubMed:<u>23193172</u>, PubMed:<u>26166670</u>, PubMed:<u>8452534</u>, PubMed:<u>9361033</u>). Plays an important role in purine metabolism and in adenosine homeostasis. Modulates signaling by extracellular adenosine, and so contributes indirectly to cellular signaling events. Acts as a positive regulator of T-cell coactivation, by binding DPP4 (PubMed:<u>20959412</u>). Its interaction with DPP4 regulates lymphocyte-epithelial cell adhesion (PubMed:<u>11772392</u>). Enhances dendritic cell immunogenicity by affecting dendritic cell costimulatory molecule expression and cytokines and chemokines secretion (By similarity). Enhances CD4+ T-cell differentiation and proliferation (PubMed:<u>20959412</u>). Acts as a positive modulator of adenosine receptors ADORA1 and ADORA2A, by enhancing their ligand affinity via conformational change (PubMed:<u>23193172</u>). Stimulates plasminogen activation (PubMed:<u>15016824</u>). Plays a role in male fertility (PubMed:<u>21919946</u>, PubMed:<u>26166670</u>). Plays a protective role in early postimplantation embryonic development (By similarity). Also responsible for the deamination of cordycepin (3'-deoxyadenosine), a fungal natural product that shows antitumor, antibacterial, antifungal, antivirus, and immune regulation properties (PubMed:<u>26038697</u>).

#### **Cellular Location**

Cell membrane; Peripheral membrane protein; Extracellular side. Cell junction. Cytoplasmic vesicle lumen {ECO:0000250|UniProtKB:P03958}. Cytoplasm. Lysosome. Note=Colocalized with DPP4 at the cell surface.

#### **Tissue Location**

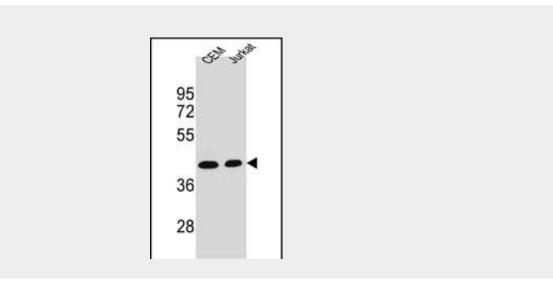
Found in all tissues, occurs in large amounts in T- lymphocytes (PubMed:20959412). Expressed at the time of weaning in gastrointestinal tissues.

# ADA Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### ADA Antibody (C-term) - Images





ADA Antibody (C-term)(Cat. #AM2128b) western blot analysis in CEM,Jurkat cell line lysates (35µg/lane).This demonstrates the ADA antibody detected the ADA protein (arrow).

### ADA Antibody (C-term) - Background

This gene encodes an enzyme that catalyzes the hydrolysis of adenosine to inosine. Various mutations have been described for this gene and have been linked to human diseases. Deficiency in this enzyme causes a form of severe combined immunodeficiency disease (SCID), in which there is dysfunction of both B and T lymphocytes with impaired cellular immunity and decreased production of immunoglobulins, whereas elevated levels of this enzyme have been associated with congenital hemolytic anemia.

### ADA Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Gloria-Bottini, F., et al. Am. J. Med. Sci. 340(2):103-108(2010) Levine, A.J., et al. Cancer Epidemiol. Biomarkers Prev. 19(7):1812-1821(2010) Spina, C., et al. Cancer Invest. (2010) In press : Ri, G., et al. Anticancer Res. 30(6):2347-2349(2010)