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Anti-ADA Picoband Antibody
Catalog # ABO12599

Specification

Anti-ADA Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P00813
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Adenosine deaminase(ADA) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ADA Picoband Antibody - Additional Information

Gene ID 100

Other Names
Adenosine deaminase, 3.5.4.4, Adenosine aminohydrolase, ADA, ADA1

Calculated MW
40764 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cell membrane; Peripheral membrane protein; Extracellular side. Cell junction. Cytoplasmic vesicle lumen . Cytoplasm . Colocalized with DPP4 at the cell junction in lymphocyte-epithelial cell adhesion.

Tissue Specificity
Found in all tissues, occurs in large amounts in T-lymphocytes and, at the time of weaning, in gastrointestinal tissues.

Protein Name
Adenosine deaminase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human ADA recombinant protein (Position: Q135-L363). Human ADA shares 82.5%

and 82.9% amino acid (aa) sequence identity with mouse and rat ADA, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-ADA Picoband Antibody - Protein Information

Name ADA

Synonyms ADA1

Function
Catalyzes the hydrolytic deamination of adenosine and 2- deoxyadenosine (PubMed:16670267, PubMed:23193172, PubMed:26166670, PubMed:8452534, PubMed:9361033). 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:20959412). Its interaction with DPP4 regulates lymphocyte-epithelial cell adhesion (PubMed:11772392). 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:20959412). Acts as a positive modulator of adenosine receptors ADORA1 and ADORA2A, by enhancing their ligand affinity via conformational change (PubMed:23193172). Stimulates plasminogen activation (PubMed:15016824). Plays a role in male fertility (PubMed:21919946, PubMed:26166670). 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:26038697).

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.

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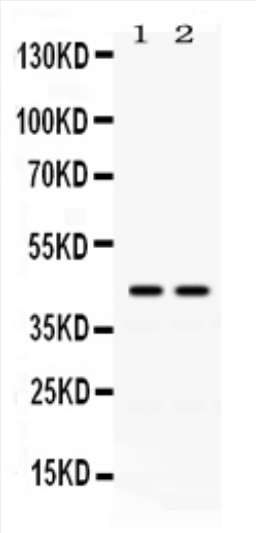
Anti-ADA Picoband Antibody - Protocols

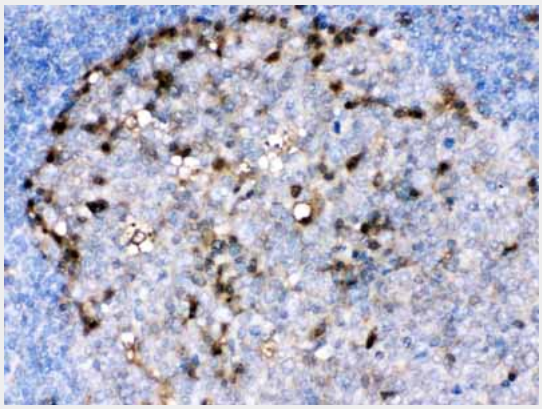
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ADA Picoband Antibody - Images



Western blot analysis of ADA expression in HELA whole cell lysates (lane 1) and COLO320 whole cell lysates (lane 2). ADA at 41KD was detected using rabbit anti- ADA Antigen Affinity purified polyclonal antibody (Catalog # ABO12599) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



ADA was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti- ADA Antigen Affinity purified polyclonal antibody(Catalog # ABO12599) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

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Anti-ADA Picoband Antibody - Background

Adenosine Deaminase (also known as adenosine aminohydrolase, or ADA) is an enzyme involved in purine metabolism. Primarily, ADA in humans is involved in the development and maintenance of the immune system. However, ADA association has also been observed with epithelial cell differentiation, neurotransmission, and gestation maintenance. It has also been proposed that ADA, in addition to adenosine breakdown, stimulates release of excitatory amino acids and is necessary to the coupling of A1 adenosine receptors and heterotrimeric G proteins. Adenosine deaminase deficiency leads to pulmonary fibrosis, suggesting that chronic exposure to high levels of adenosine can exacerbate inflammation responses rather than suppressing them. It has also been recognized that adenosine deaminase protein and activity is upregulated in mouse hearts that overexpress HIF-1 alpha, which in part explains the attenuated levels of adenosine in HIF-1 alpha expressing hearts during ischemic stress.