Datasheet for ABIN4886424

anti-ADA antibody (AA 135-363)

2 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	ADA
Binding Specificity:	AA 135-363
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ADA antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-ADA Antibody Picoband®
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-ADA Antibody Picoband® (ABIN4886424). Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	ADA
Alternative Name:	ADA (ADA Products)
Background:	Synonyms: Adenosine deaminase,3.5.4.4,Adenosine aminohydrolase,ADA,ADA1, Tissue Specificity: Found in all tissues, occurs in large amounts in T-lymphocytes and, at the time of weaning, in gastrointestinal tissues. 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.
Molecular Weight:	41 kDa
Gene ID:	100
UniProt:	P00813
Pathways:	Regulation of G-Protein Coupled Receptor Protein Signaling, Ribonucleoside Biosynthetic Process

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/mL, Human Flow Cytometry(Fixed), 1-3 µg/1x10^6 cells, Human

1. Blackburn MR (2003). "Too much of a good thing: adenosine overload in adenosine-deaminase-deficient mice". Trends in Pharmacological Sciences 24 (2): 66-70. 2. Cristalli G, Costanzi S, Lambertucci C, Lupidi G, Vittori S, Volpini R, Camaioni E (Mar 2001). "Adenosine deaminase: functional implications and different classes of inhibitors". Medicinal Research Reviews 21 (2): 105-128. 3. Wilson DK, Rudolph FB, Quiocho FA (May 1991). "Atomic structure of adenosine deaminase complexed with a transition-state analog: understanding catalysis and immunodeficiency mutations". Science 252(5010): 1278-1284.

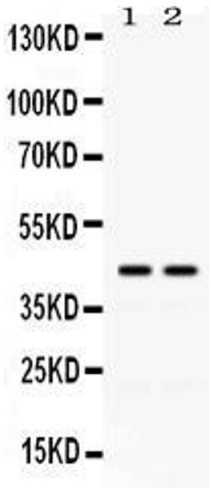
Application Details

Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.01 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

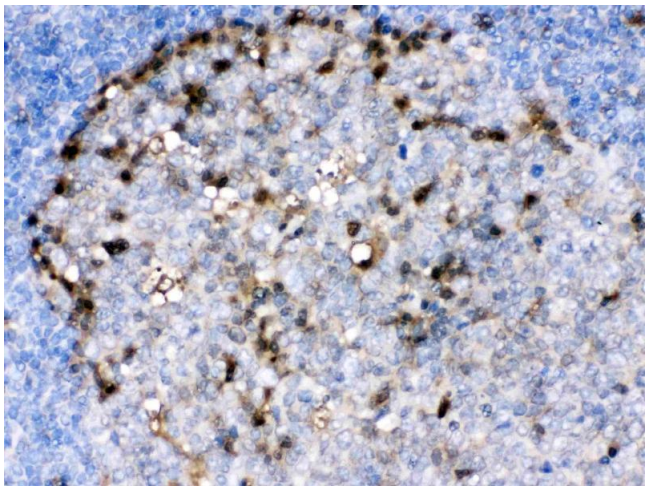
Images



Western Blotting

Image 1. Western blot analysis of ADA/Adenosine Deaminase using anti- ADA/Adenosine Deaminase antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: HELA whole cell lysates, Lane 2: COLO320 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-

ADA/Adenosine Deaminase antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ADA/Adenosine Deaminase at approximately 41KD. The expected band size for ADA/Adenosine Deaminase is at 41KD.



Immunohistochemistry

Image 2. IHC analysis of ADA/Adenosine Deaminase using anti- ADA/Adenosine Deaminase antibody . ADA/Adenosine Deaminase was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti- ADA/Adenosine Deaminase Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.