

Datasheet for ABIN6719272
anti-ADA antibody (AA 135-363)



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Overview

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

Product Details

Purpose:	Anti-ADA Antibody Picoband® (monoclonal, 6D4)
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.
Clone:	6D4
Isotype:	IgG2b
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-ADA Antibody Picoband® (monoclonal, 6D4) (ABIN6719272). Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human. 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.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: ADA

Alternative Name: ADA ([ADA Products](#))

Background: Synonyms: Adenosine deaminase
Tissue Specificity: Found in all tissues, occurs in large amounts in T-lymphocytes (PubMed:20959412). Expressed 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: 45 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
Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL
Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells
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

Application Details

Reviews 21 (2): 105-128. 3. Wilson DK, Rudolph FB, Quioco FA (May 1991). "Atomic structure of adenosine deaminase complexed with a transition-state analog: understanding catalysis and immunodeficiency mutations". Science 252(5010): 1278-1284.

Comment: Tested Species: In-house tested species with positive results. By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections. Other applications have not been tested. Optimal dilutions should be determined by end users.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Concentration: 500 µg/mL

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 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.

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.