Mouse anti-Human ADA Monoclonal Antibody | anti-ADA antibody

Anti-ADA Antibody (monoclonal, 6D4)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19184	**Mouse**	**Human**	**Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay**

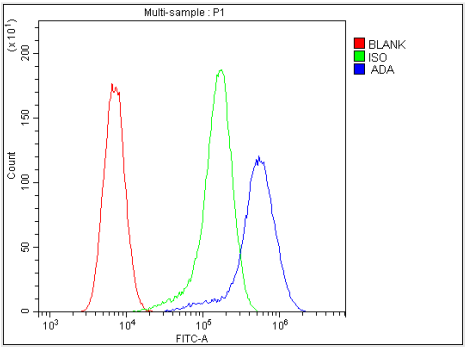
PRODUCT SYNONYMS

ADA; Monoclonal Antibody; Anti-ADA Antibody (monoclonal; 6D4); Adenosine deaminase; anti-ADA antibody

PRODUCT SPECIFICATIONS

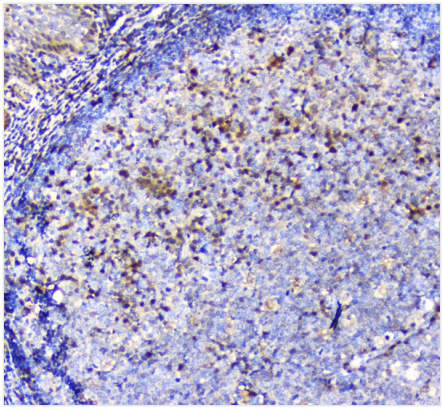
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	CD4
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized
Sequence Length	363
Applicable Applications for anti-ADA antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry)
Application Notes	WB: 0.1-0.5ug/ml IHC-P:0.5-1ug/ml; Antigen Retrieval: By heat (FC): 1-3ug/1x10^6 cells. Tested Species: In-house tested species with positice results. By heat: Boiling the paraffin section 10mM citrate buffer, pH6.0, for 20mins is required for staining of formalin.paraffin sections. Other applications have not been tested. Optimal dilutions should be determined by end users.
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.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection Systems	It is recommended to use an Enhanced Chemiluminescent Kit with anti-Rabbit IgG for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit for IHC-P.
Contents	Each vial contains 4mg Trehalose, 0.9 NaCl, 0.2mg Na_2HPO_4, 0.052mg NaN_3.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



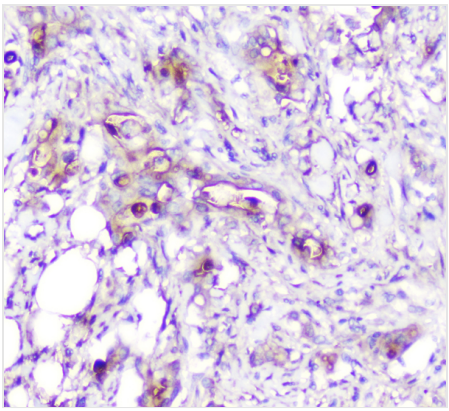
FCM (Flow Cytometry)

Figure 7. Flow Cytometry analysis of U20S cells using anti- ADA antibody (AAA19184). Overlay histogram showing U20S cells stained with AAA19184 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- ADA Antibody (AAA19184, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



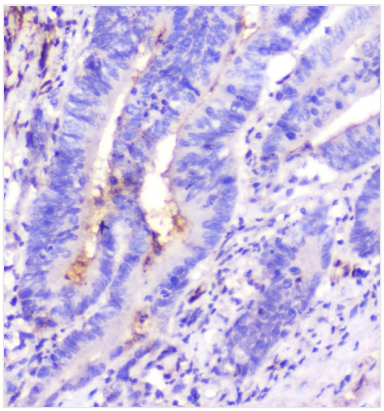
IHC (Immunohistchemistry)

Figure 6. IHC analysis of ADA using anti-ADA antibody (AAA19184). ADA was detected in paraffin-embedded section of human tonsil tissue. 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 1ug/ml mouse anti-ADA Antibody (AAA19184) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



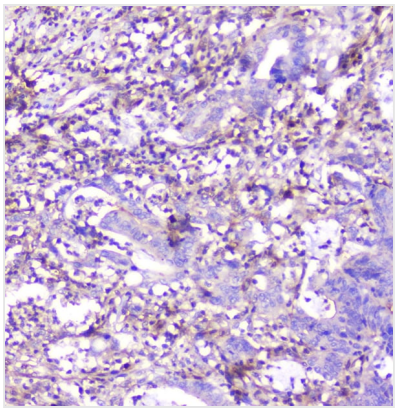
IHC (Immunohistochemistry)

Figure 5. IHC analysis of ADA using anti-ADA antibody (AAA19184). ADA was detected in paraffin-embedded section of human rectal cancer tissue. 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 1ug/ml mouse anti-ADA Antibody (AAA19184) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

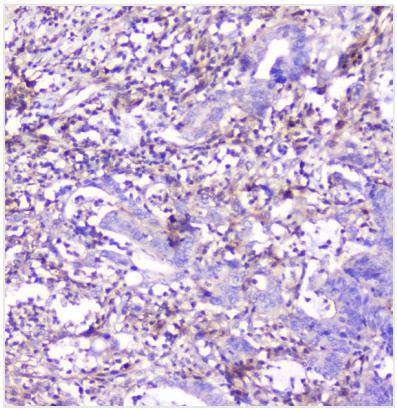


IHC (Immunohistochemistry)

Figure 4. IHC analysis of ADA using anti-ADA antibody (AAA19184). ADA was detected in paraffin-embedded section of human colon cancer tissue. 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 1ug/ml mouse anti-ADA Antibody (AAA19184) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)
Figure 3. IHC analysis of ADA using anti-ADA antibody (AAA19184). ADA was detected in paraffin-embedded section of human colon cancer tissue. 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 1ug/ml mouse anti-ADA Antibody (AAA19184) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)
Figure 3. IHC analysis of ADA using anti-ADA antibody (AAA19184). ADA was detected in paraffin-embedded section of human colon cancer tissue. 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 1ug/ml mouse anti-ADA Antibody (AAA19184) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-ADA antibody	Description: Mouse IgG monoclonal antibody for ADA detection. Tested with WB, IHC-P, FCM in Human. 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.
References	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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	47078295
NCBI GeneID	100
NCBI Accession #	NP_000013.2
NCBI GenBank Nucleotide #	NM_000022.4
UniProt Accession #	P00813; Q53F92; Q6LA59
NCBI Official Full Name	adenosine deaminase isoform 1
NCBI Official Synonym Full Names	adenosine deaminase
NCBI Official Symbol	ADA
NCBI Protein Information	adenosine deaminase
UniProt Protein Name	Adenosine deaminase

UniProt Gene Name	**ADA**
UniProt Synonym Gene Names	ADA1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/ada-antibody-clone-cd4-western-blot-immunohistochemistry-flow-cytometry-elisa/19184