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Anti-ADK Picoband Antibody

Catalog # ABO11649

Product Information

Application	WB, IHC-P
Primary Accession	P55263
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Adenosine kinase(ADK) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	132
Other Names	Adenosine kinase, AK, 2.7.1.20, Adenosine 5'-phosphotransferase, ADK
Calculated MW	40545
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Isoform 1: Nucleus .
Tissue Specificity	Widely expressed. Highest level in placenta, liver, muscle and kidney.
Source	Eukaryota
Protein Name	Adenosine kinase
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human ADK recombinant protein (Position: K165-T351). Human ADK shares 88.8% and 88.2% amino acid (aa) sequence identity with mouse and rat ADK, 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.

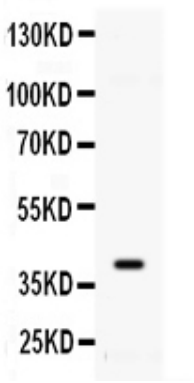
Protein Information

Name	ADK {ECO:0000303|PubMed:19635462, ECO:0000312|HGNC:HGNC:257}
Function	Adenosine kinase that mediates the phosphorylation of the purine nucleoside adenosine at the 5' position in an ATP-dependent manner: catalyzes phosphorylation of both unmodified and modified adenosines (PubMed:21963049, PubMed:40840445, PubMed:6246102, PubMed:8577746, PubMed:9070863). Plays a key role in the detoxification of modified adenosines containing N(6)-methylated adenine (m6A) post- transcriptional modification (PubMed:40840445). Modified nucleosides are derived from the degradation of RNAs (mRNAs, rRNAs and tRNAs) and possess intrinsic cytotoxicity and must be cleared to prevent metabolic dysfunction (PubMed:40840445). Catalyzes the phosphorylation of the free cytosolic methylated adenosine nucleotides N(6)-methyladenosine (m6A), N(6),N(6)-dimethyladenosine (m6,6A) and N(6)- isopentenyladenosine (i6A) into adenosine monophosphate (AMP) intermediates that are further detoxified by MAPDA/ADAL (PubMed:40840445).
Cellular Location	Cytoplasm, cytosol. [Isoform 2]: Cytoplasm
Tissue Location	Widely expressed. Highest level in placenta, liver, muscle and kidney.

Background

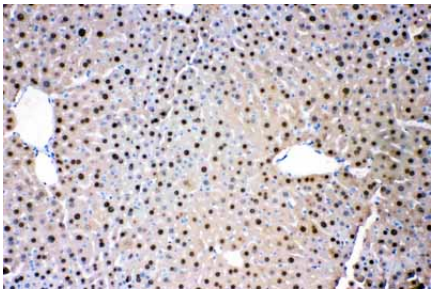
This gene is an enzyme which catalyzes the transfer of the gamma-phosphate from ATP to adenosine, thereby serving as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine has widespread effects on the cardiovascular, nervous, respiratory, and immune systems and inhibitors of the enzyme could play an important pharmacological role in increasing intravascular adenosine concentrations and acting as anti-inflammatory agents. Multiple transcript variants encoding different isoforms have been found for this gene.

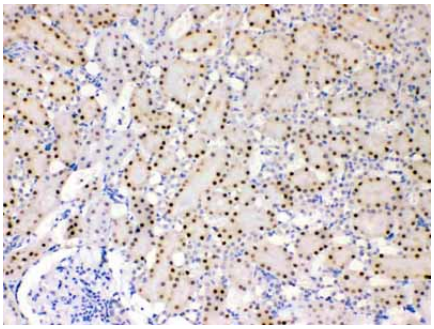
Images



Western blot analysis of ADK expression in MCF-7 whole cell lysates (lane 1). ADK at 40KD was detected using rabbit anti- ADK Antigen Affinity purified polyclonal antibody (Catalog # ABO11649) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .

ADK was detected in paraffin-embedded sections of mouse liver tissues using rabbit anti- ADK Antigen Affinity purified polyclonal antibody (Catalog # ABO11649) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .





ADK was detected in paraffin-embedded sections of rat kidney tissues using rabbit anti- ADK Antigen Affinity purified polyclonal antibody (Catalog # ABO11649) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .