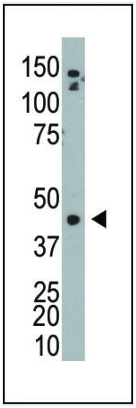
# ADK Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | ADK, Polyclonal Antibody |
| **Full Product Name** | ADK, NT (Adenosine Kinase, AK, Adenosine 5'-phosphotransferase) (PE) |
| **Product Gene Name** | anti-ADK antibody |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human, Mouse |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE). |
| **Purity/Purification** | Purified by Protein A/G Affinity Chromatography. |
| **Specificity** | Recognizes human ADK. Species Crossreactivity: mouse |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 40,545 Da |
| **Chromosome Location** | Chromosome: 10; NC_000010.10 (75910943..76469061). Location: 10q22; 10q11-q24 |
| **OMIM** | 102750 |
| **3D Structure** | ModBase 3D Structure for P55263 |
| **Immunogen** | KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 35-65 in the N-terminal region of human ADK, UniProt Accession #P55263. Species sequence homology: rat |
| **Conjugate** | PE |
| **Note** | Preservative Free |
| **Special Handling** | Light sensitive |
| **Product Categories/Family for anti-ADK antibody** | Antibodies; Protein Kinases |
| **Applications Tested/Suitable for anti-ADK antibody** | FLISA, Western Blot (WB) |
| **Application Notes for anti-ADK antibody** | Applications are based on unconjugated antibody. |
| **Related Product Information for anti-ADK antibody** | MBS6461608 is an antibody targeting ADK. Also known as ADK, NT (Adenosine Kinase, AK, Adenosine 5'-phosphotransferase) (PE). Reactive in Human, Mouse. Host: Rabbit. |
| **Other Notes** | Small volumes of anti-ADK antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |




**Western Blot (WB) of anti-ADK antibody**
Western Blot analysis in HepG2 cell line lysates (35ug/lane) usingMBS6006036. This demonstrates that MBS6006036 detected the CDR2 protein (arrow).

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ADK. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 32484973 |
| **NCBI GeneID** | 132 |
| **NCBI Accession #** | NP_001114.2 |
| **UniProt Primary Accession #** | P55263 |
| **UniProt Secondary Accession #** | O00741; O00742; Q16710; Q5JQ11; Q9BTN2; B7Z783 |
| **UniProt Related Accession #** | P55263 |
| **GenBank Nucleotide #** | NM_001123.3 |
| **NCBI Official Full Name** | adenosine kinase isoform a |
| **NCBI Official Synonym Full Names** | adenosine kinase |
| **NCBI Official Symbol** | ADK |
| **NCBI Official Synonym Symbols** | AK |
| **UniProt Protein Name** | Adenosine kinase |
| **UniProt Synonym Protein Names** | Adenosine 5'-phosphotransferase |
| **UniProt Gene Name** | ADK |
| **UniProt Synonym Gene Names** | AK |
| **UniProt Entry Name** | ADK_HUMAN |
| **NCBI Protein Information** | adenosine kinase; adenosine 5'-phosphotransferase |
| **NCBI Summary for ADK** | This gene 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. [provided by RefSeq, Jan 2011] |

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| **UniProt Comments for ADK** | ADK: ATP dependent phosphorylation of adenosine and other related nucleoside analogs to monophosphate derivatives. Serves as a potential regulator of concentrations of extracellular adenosine and intracellular adenine nucleotides. Defects in ADK are the cause of hypermethioninemia due to adenosine kinase deficiency (HMAKD). A metabolic disorder characterized by global developmental delay, early-onset seizures, mild dysmorphic features, and characteristic biochemical anomalies, including persistent hypermethioninemia with increased levels of S-adenosylmethionine and S-adenosylhomocysteine. Homocysteine levels are typically normal. Belongs to the carbohydrate kinase PfkB family. 3 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: EC 2.7.1.20; Nucleotide Metabolism - purine; Kinase, other<br><br>Chromosomal Location of Human Ortholog: 10q22\|10q11-q24<br><br>Cellular Component: nucleoplasm; cytoplasm; cytosol<br><br>Molecular Function: metal ion binding; adenosine kinase activity; phosphotransferase activity, alcohol group as acceptor; ATP binding<br><br>Biological Process: nucleobase, nucleoside and nucleotide metabolic process; dATP biosynthetic process; ribonucleoside monophosphate biosynthetic process; positive regulation of T cell proliferation; circadian regulation of gene expression; adenosine metabolic process; phosphorylation; purine base metabolic process; purine salvage<br><br>Disease: Hypermethioninemia Due To Adenosine Kinase Deficiency |
| **Research Articles on ADK** | **1.** Data show that we a significantly higher expression of ADK in the peritumoral infiltrated tissue of patients with epilepsy than in patients without epilepsy. |
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