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AK2 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8134b

Specification

AK2 Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P54819
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**187-217**

AK2 Antibody (C-term) - Additional Information

Gene ID 204

Other Names
Adenylate kinase 2, mitochondrial {ECO:0000255|HAMAP-Rule:MF_03168}, AK 2 {ECO:0000255|HAMAP-Rule:MF_03168}, 2743 {ECO:0000255|HAMAP-Rule:MF_03168}, ATP-AMP transphosphorylase 2 {ECO:0000255|HAMAP-Rule:MF_03168}, ATP:AMP phosphotransferase {ECO:0000255|HAMAP-Rule:MF_03168}, Adenylate monophosphate kinase {ECO:0000255|HAMAP-Rule:MF_03168}, Adenylate kinase 2, mitochondrial, N-terminally processed {ECO:0000255|HAMAP-Rule:MF_03168}, AK2 {ECO:0000255|HAMAP-Rule:MF_03168}, ADK2

Target/Specificity
This AK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 187-217 amino acids from the C-terminal region of human AK2.

Dilution
IHC-P~~1:50~100
WB~~1:2000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
AK2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AK2 Antibody (C-term) - Protein Information

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Name AK2 {ECO:0000255|HAMAP-Rule:MF_03168}

Synonyms ADK2

Function Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism. Adenylate kinase activity is critical for regulation of the phosphate utilization and the AMP de novo biosynthesis pathways. Plays a key role in hematopoiesis.

Cellular Location
Mitochondrion intermembrane space {ECO:0000255|HAMAP-Rule:MF_03168}

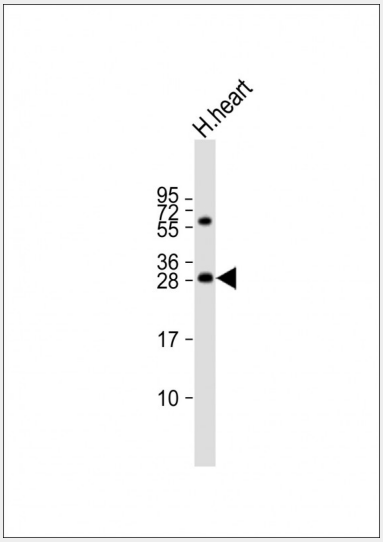
Tissue Location
Present in most tissues. Present at high level in heart, liver and kidney, and at low level in brain, skeletal muscle and skin. Present in thrombocytes but not in erythrocytes, which lack mitochondria. Present in all nucleated cell populations from blood, while AK1 is mostly absent. In spleen and lymph nodes, mononuclear cells lack AK1, whereas AK2 is readily detectable. These results indicate that leukocytes may be susceptible to defects caused by the lack of AK2, as they do not express AK1 in sufficient amounts to compensate for the AK2 functional deficits (at protein level)

AK2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

AK2 Antibody (C-term) - Images



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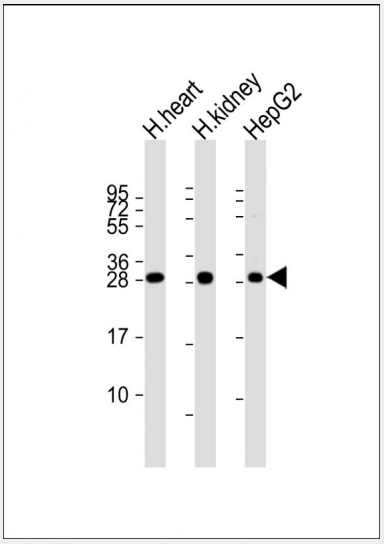
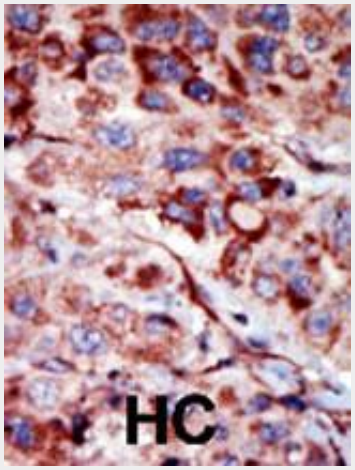
Anti-AK2 Antibody (C-term) at 1:2000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-AK2 Antibody (C-term) at 1:2000 dilution Lane 1: human heart lysate Lane 2: human kidney lysate Lane 3: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

AK2 Antibody (C-term) - Background

Adenylate kinases are involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. Five isozymes of adenylate kinase have been identified in vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. Isozyme 2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis.

AK2 Antibody (C-term) - References

Noma, T., et al., Biochim. Biophys. Acta 1395(1):34-39 (1998).

Lee, Y., et al., J. Biochem. 123(1):47-54 (1998).
Lee, Y., et al., Biochem. Mol. Biol. Int. 39(4):833-842 (1996).
Bruns, G.A., et al., Biochem. Genet. 15 (5-6), 477-486 (1977).