

For Research Use Only

# AK2 Monoclonal antibody

Catalog Number: 66127-1-Ig

Featured Product



## Basic Information

Catalog Number:

66127-1-Ig

GenBank Accession Number:

BC009405

Purification Method:

Protein A purification

Size:

150ul, Concentration: 2500 ug/ml by 204  
Nanodrop and 1800 ug/ml by Bradford  
method using BSA as the standard;

GeneID (NCBI):

204

CloneNo.:

3H2C10

Source:

Mouse

UNIPROT ID:

P54819

Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:2000-1:8000

IF/ICC: 1:20-1:200

FC (Intra): 0.25 ug per 10<sup>6</sup> cells in a  
100 µl suspension

Isotype:

IgG2a

Full Name:

adenylate kinase 2

Calculated MW:

26 kDa

Observed MW:

29 kDa

Immunogen Catalog Number:

AG17911

## Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Species Specificity:

human, mouse, rat

**Note-IHC: suggested antigen retrieval with  
TE buffer pH 9.0; (\*) Alternatively, antigen  
retrieval may be performed with citrate  
buffer pH 6.0**

Positive Controls:

WB: HeLa cells, HEK-293 cells, HepG2 cells, Jurkat  
cells, K-562 cells, HSC-T6 cells, PC-12 cells, NIH/3T3  
cells, 4T1 cells

IHC: human lung cancer tissue, human heart tissue,  
human kidney tissue, human liver tissue, human liver  
cancer tissue, mouse heart tissue, rat heart tissue

IF/ICC: HepG2 cells, HeLa cells

FC (Intra): HepG2 cells,

## Background Information

AK2(Adenylate kinase 2, mitochondrial) is also named as ADK2 and belongs to the adenylate kinase family. It plays a unique role in energy metabolism and energy transfer by regulating the ATP/ADP rate between the cytoplasmic matrix and the mitochondria and it is increased expression during adipocyte and B cell differentiation(PMID:23020757). AK2 catalyzes the reversible transfer of a phosphoryl group from ATP to AMP(PMID:19043417). Defects in AK2 are the cause of reticular dysgenesis (RDYS)(PMID:19043416). It has 6 isoforms produced by alternative splicing.

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

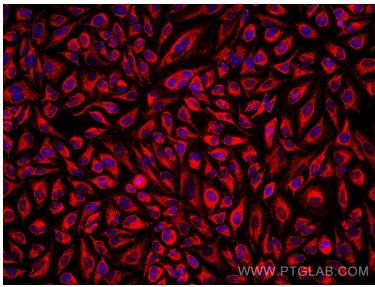
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free  
in USA), or 1(312) 455-8498 (outside USA)

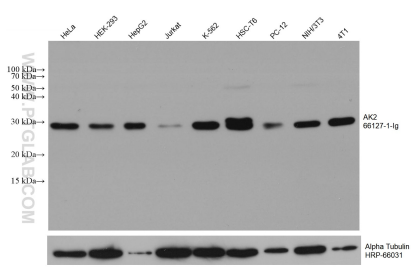
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech  
Group brand and is not available to purchase from any  
other manufacturer.

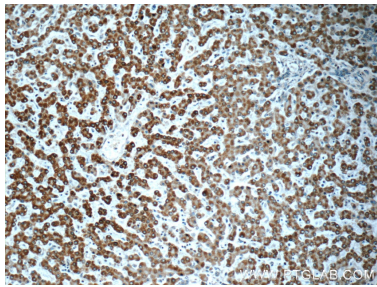
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using AK2 antibody (66127-1-Ig, Clone: 3H2C10) at dilution of 1:5024 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO. RGAM004).



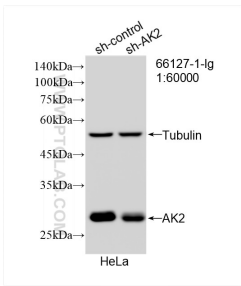
Various lysates were subjected to SDS PAGE followed by western blot with 66127-1-Ig (AK2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Alpha Tubulin Monoclonal antibody (HRP-66031) as loading control.



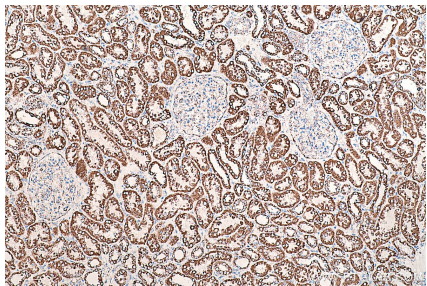
Immunohistochemical analysis of paraffin-embedded human liver slide using 66127-1-Ig (AK2 Antibody) at dilution of 1:50.



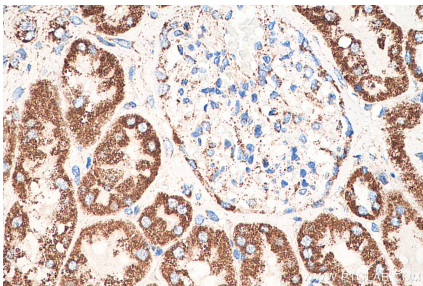
Immunofluorescent analysis of HepG2 cells using 66127-1-Ig (AK2 antibody) at dilution of 1:50 and Rhodamine-Goat anti-Mouse IgG.



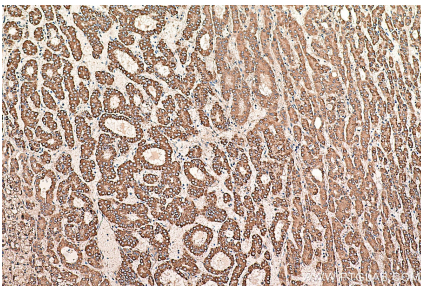
WB result of AK2 antibody (66127-1-Ig; 1:60000; incubated at room temperature for 1.5 hours) with sh-Control and sh-AK2 transfected HeLa cells.



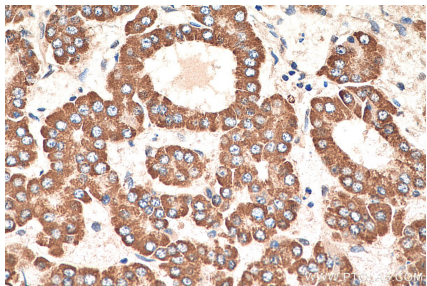
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:8000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



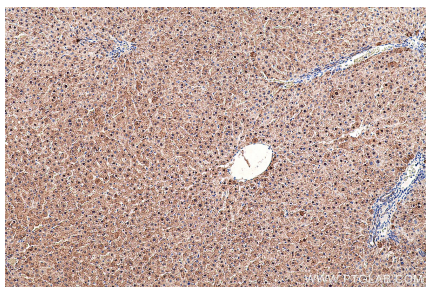
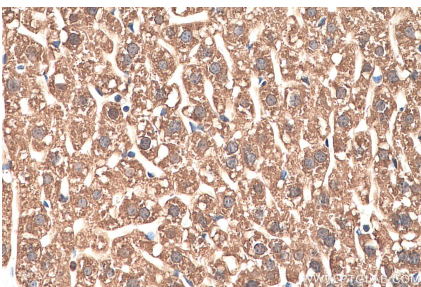
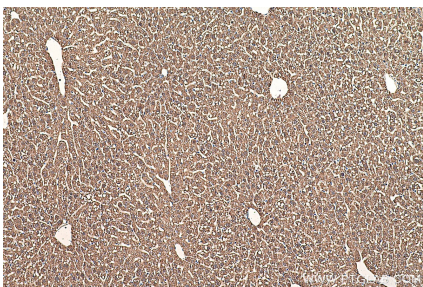
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:8000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:8000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

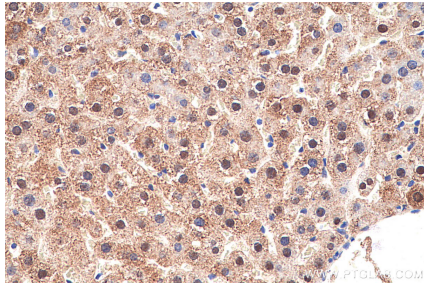


Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:8000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

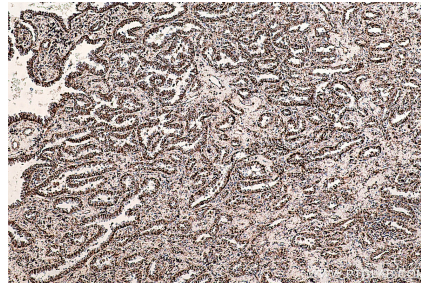




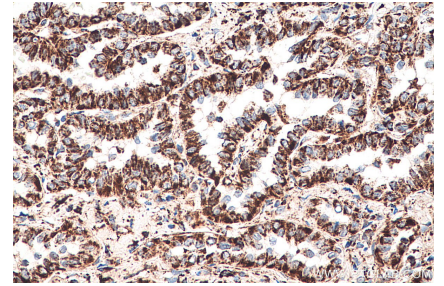
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



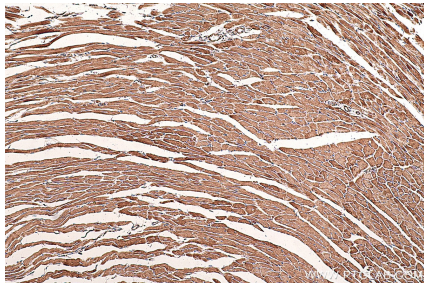
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



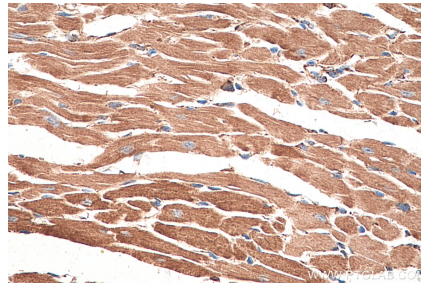
Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



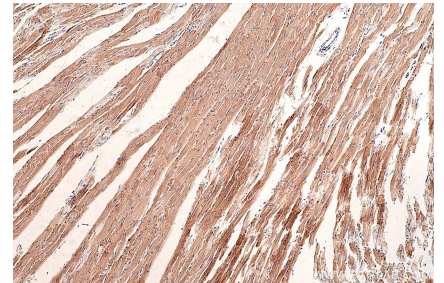
Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



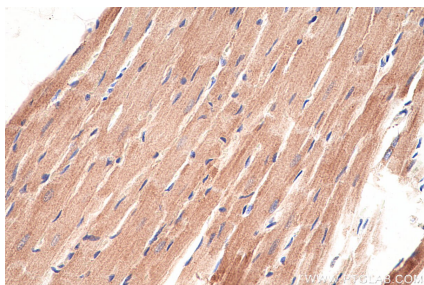
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



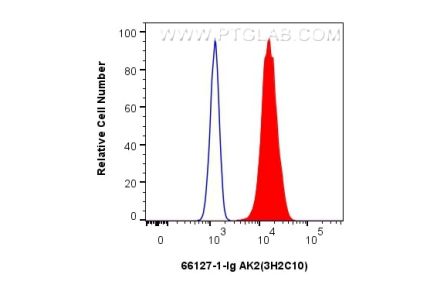
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat heart tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded rat heart tissue slide using 66127-1-Ig (AK2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10<sup>6</sup> HepG2 cells were intracellularly stained with 0.25 ug AK2 Monoclonal antibody (66127-1-Ig, Clone:3H2C10) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 ug Mouse IgG2a isotype control Mouse McAb (66360-2-Ig, Clone: 11A1B2) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).