

**AK5 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP8131A****Specification**

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**AK5 Antibody (N-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">Q9Y6K8</a>
Other Accession	<a href="#">Q920P5</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	404-433

**AK5 Antibody (N-term) - Additional Information****Gene ID** 26289**Other Names**

Adenylate kinase isoenzyme 5, AK 5, ATP-AMP transphosphorylase 5, AK5

**Target/Specificity**

This AK5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 404-433 amino acids from the N-terminal region of human AK5.

**Dilution**WB~~1:1000  
IHC-P~~1:50~100**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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**

AK5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**AK5 Antibody (N-term) - Protein Information****Name** AK5

**Function** Nucleoside monophosphate (NMP) kinase that catalyzes the reversible transfer of the terminal phosphate group between nucleoside triphosphates and monophosphates. Active on AMP

and dAMP with ATP as a donor. When GTP is used as phosphate donor, the enzyme phosphorylates AMP, CMP, and to a small extent dCMP. Also displays broad nucleoside diphosphate kinase activity.

**Cellular Location**

Cytoplasm.

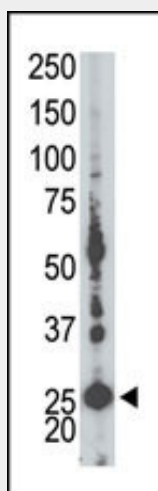
**Tissue Location**

Brain specific..

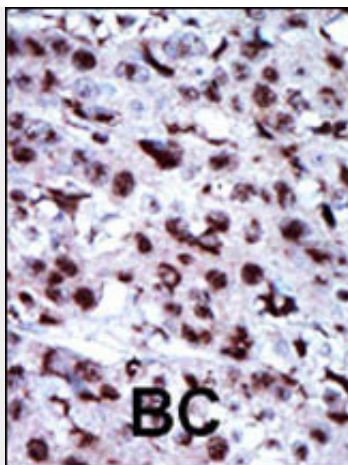
**AK5 Antibody (N-term) - Protocols**

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

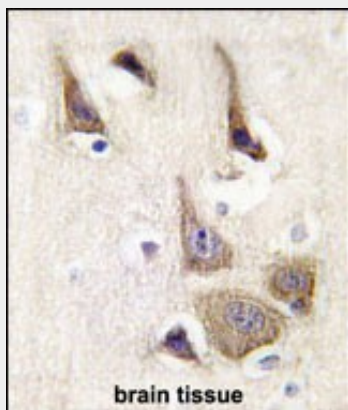
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**AK5 Antibody (N-term) - Images**

The anti-AK5 Pab (Cat. #AP8131a) is used in Western blot to detect AK5 in mouse liver tissue lysate.



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.



Formalin-fixed and paraffin-embedded human brain tissue reacted with AK5 Antibody (N-term) (Cat.#AP8131a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **AK5 Antibody (N-term) - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).

#### **AK5 Antibody (N-term) - References**

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).

Van Rompay, A.R., et al., Eur. J. Biochem. 261(2):509-517 (1999).

**AK5 Antibody (N-term) - Citations**

- [Identification of therapeutic targets for quiescent, chemotherapy-resistant human leukemia stem cells.](#)