

**DCK Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7087B****Specification**

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**DCK Antibody (C-term) - Product Information**

Application	<b>IF, IP, WB, IHC-P,E</b>
Primary Accession	<a href="#">P27707</a>
Reactivity	<b>Human, Mouse</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>171-200</b>

**DCK Antibody (C-term) - Additional Information****Gene ID** 1633**Other Names**

Deoxycytidine kinase, dCK, DCK

**Target/Specificity**

This DCK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 171-200 amino acids from the C-terminal region of human DCK.

**Dilution**

IF~~1:10~50  
IP~~1:500~1000  
WB~~1:1000  
IHC-P~~1:10~50

**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**

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

**DCK Antibody (C-term) - Protein Information****Name** DCK**Function** Phosphorylates the deoxyribonucleosides deoxycytidine, deoxyguanosine and

deoxyadenosine (PubMed:[12808445](#), PubMed:[18377927](#), PubMed:[19159229](#), PubMed:[1996353](#), PubMed:[20614893](#), PubMed:[20637175](#)). Has broad substrate specificity, and does not display selectivity based on the chirality of the substrate. It is also an essential enzyme for the phosphorylation of numerous nucleoside analogs widely employed as antiviral and chemotherapeutic agents (PubMed:[12808445](#)).

#### Cellular Location

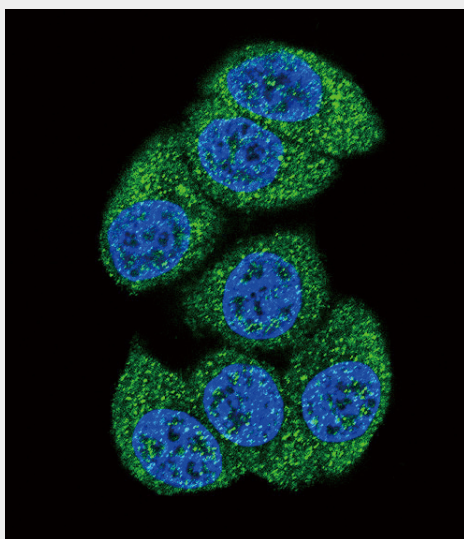
Nucleus.

#### DCK Antibody (C-term) - Protocols

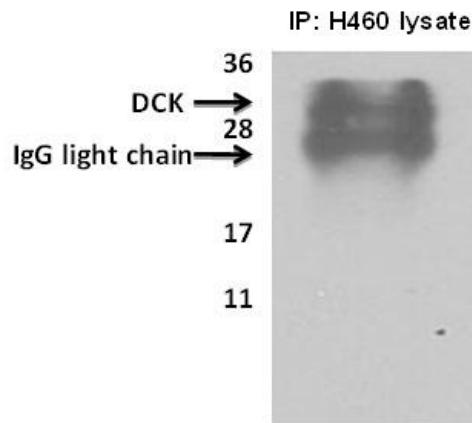
Provided below are standard protocols that you may find useful for product applications.

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

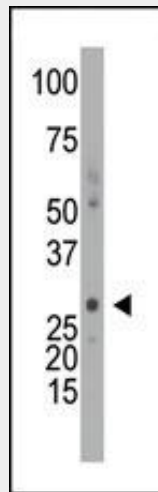
#### DCK Antibody (C-term) - Images



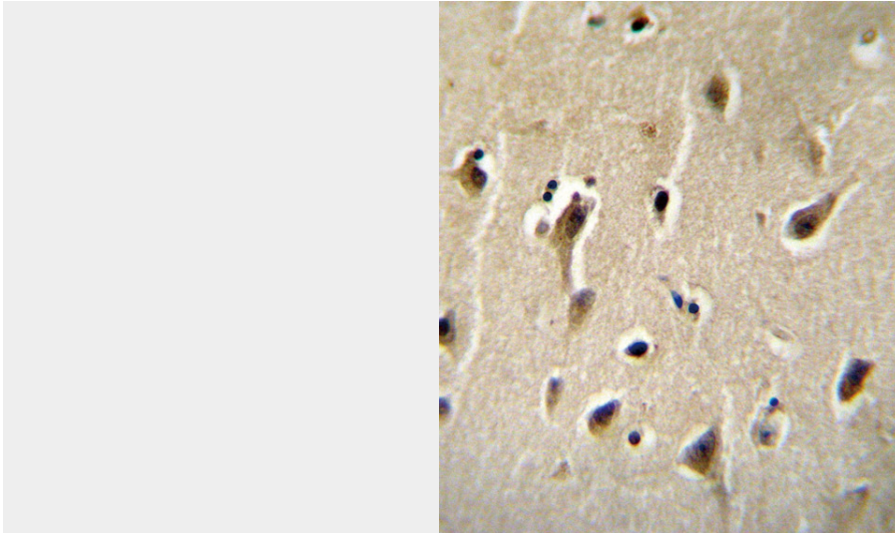
Confocal immunofluorescent analysis of DCK Antibody (C-term)(Cat#AP7087b) with HeLa cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).



Deoxycytidine kinase(DCK) immunoprecipitated from H460cells with 7.5ug (microgram) of the dCK antibody (AP7087b) using the Pierce classic mammalian IP kit (#45217) reagent as described as manufacturer instructions (lane 1, 3) and Current Protocols in Cell Biology, 1998, 7.2.1-7.2.21. Proteins separated on a 12% SDS gel, transferred to a PVDF membrane and probed with 1:700 dilution of DCK antibody (AP7087b). Bands were detected using enhanced chemiluminescence (SuperSignal West Pico Chemiluminescent Substrate Kit). No specific reagents were employed to remove IgG from immunoprecipitated sample. Data courtesy of Dr. Stacy Shord, University of Illinois, Chicago.



The anti-DCK Pab (Cat. #AP7087b) is used in Western blot to detect DCK in mouse intestine tissue lysate.



DCK Antibody (C-term) (Cat. #AP7087B) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of DCK Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **DCK Antibody (C-term) - Background**

Deoxycytidine kinase is responsible for the phosphorylation of several deoxyribonucleosides and their analogs. Deficiency of this enzyme activity is associated with resistance to antiviral and anticancer chemotherapeutic agents, whereas increased enzyme activity is associated with increased activation of these compounds to cytotoxic nucleoside triphosphate derivatives. It is the rate limiting enzyme in the activation of many important anticancer and retroviral drugs and its activity is often decreased in cells that are resistant to cytosine arabinoside.

#### **DCK Antibody (C-term) - References**

Chottiner, E. G., et al. Proc. Nat. Acad. Sci. 88: 1531-1535 (1991).

#### **DCK Antibody (C-term) - Citations**

- [Clofarabine exerts antileukemic activity against cytarabine-resistant B-cell precursor acute lymphoblastic leukemia with low deoxycytidine kinase expression.](#)
- [Population-specific genetic variants important in susceptibility to cytarabine arabinoside cytotoxicity.](#)
- [Pharmacogenetics of deoxycytidine kinase: identification and characterization of novel genetic variants.](#)