

For Research Use Only

# dGK Polyclonal antibody

Catalog Number: 16314-1-AP



## Basic Information

<b>Catalog Number:</b> 16314-1-AP	<b>GenBank Accession Number:</b> BC015757	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 180 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 1716	<b>Recommended Dilutions:</b> WB 1:500-1:1000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q16854	
<b>Isotype:</b> IgG	<b>Full Name:</b> deoxyguanosine kinase	
<b>Immunogen Catalog Number:</b> AG9361	<b>Calculated MW:</b> 277 aa, 32 kDa	
	<b>Observed MW:</b> 28-32 kDa, 56-64 kDa	

## Applications

### Tested Applications:

WB, IHC, ELISA

### Species Specificity:

human, mouse

**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 : mouse kidney tissue,

IHC : human hepatocirrhosis tissue,

## Background Information

Deoxyguanosine kinase (dGK) deficiency is a frequent cause of mitochondrial DNA depletion associated with a hepatocerebral phenotype. dGK is a member of the deoxyribonucleoside kinase family involved in phosphorylation of deoxyribonucleosides. In mammals, there are four deoxyribonucleoside kinases with overlapping specificities: two cytoplasmic enzymes, thymidine kinase 1 (TK1) and deoxycytidine kinase (dCK), and two mitochondrial enzymes, thymidine kinase 2 (TK2) and deoxyguanosine kinase (dGK). The human dGK protein is highly specific for purine substrates. Human dGK is a dimer of two identical subunits of 30 kDa. The three-dimensional structure of the human dGK monomer has been reported, providing an explanation for the substrate specificity of the enzyme. (PMID: 29786478, PMID: 11427893, PMID: 17073823)

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

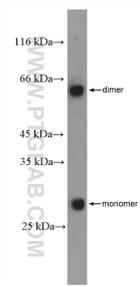
For technical support and original validation data for this product please contact:

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

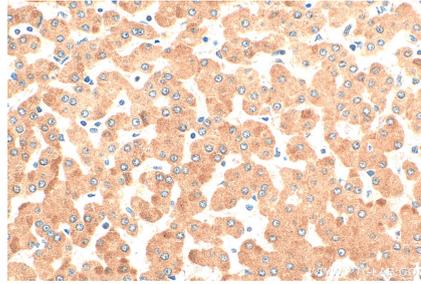
E: proteintech@ptglab.com  
W: ptglab.com

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

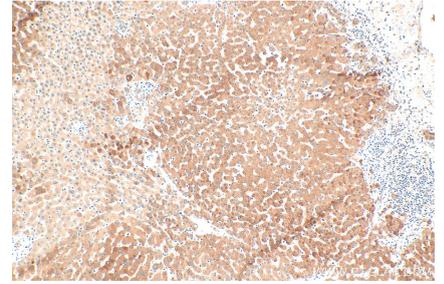
## Selected Validation Data



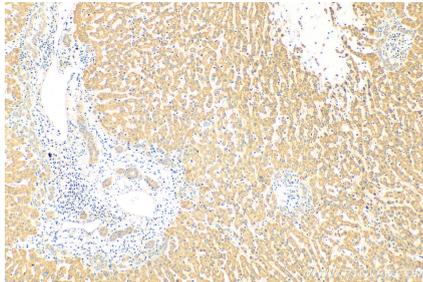
mouse kidney tissue were subjected to SDS PAGE followed by western blot with 16314-1-AP (dGK antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



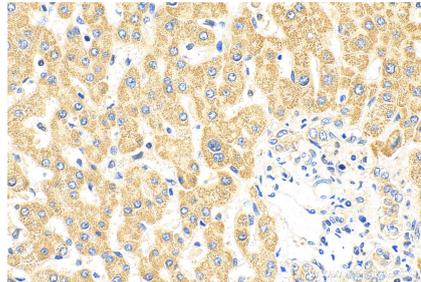
Immunohistochemical analysis of paraffin-embedded human hepatocirrhosis tissue slide using 16314-1-AP (dGK antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human hepatocirrhosis tissue slide using 16314-1-AP (dGK antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human hepatocirrhosis tissue slide using 16314-1-AP (dGK antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human hepatocirrhosis tissue slide using 16314-1-AP (dGK antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).