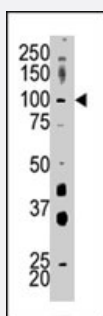


# HK1 polyclonal antibody

Catalog # PAB4008

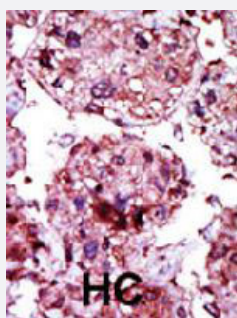
Size 400 uL

## Applications



### Western Blot (Tissue lysate)

The HK1 polyclonal antibody (Cat # PAB4008) is used in Western blot to detect HK1 in mouse skeletal muscle tissue lysate.



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma tissue reacted with HK1 polyclonal antibody (Cat # PAB4008), 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.

## Specification

<b>Product Description</b>	Rabbit polyclonal antibody raised against synthetic peptide of HK1.
<b>Immunogen</b>	A synthetic peptide (conjugated with KLH) corresponding to N-terminus of human HK1.
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse
<b>Form</b>	Liquid
<b>Purification</b>	Protein G purification

Recommend Usage	ELISA (1:1000) Western Blot (1:100-500) Immunohistochemistry (1:50-100) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Applications

- Western Blot (Tissue lysate)

The HK1 polyclonal antibody (Cat # PAB4008) is used in Western blot to detect HK1 in mouse skeletal muscle tissue lysate.

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma tissue reacted with HK1 polyclonal antibody (Cat # PAB4008), 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.

- Enzyme-linked Immunoabsorbent Assay

## Gene Info — HK1

Entrez GeneID	<a href="#">3098</a>
Protein Accession#	<a href="#">P19367</a>
Gene Name	HK1
Gene Alias	HK1-ta, HK1-tb, HK1-tc, HKI, HXK1
Gene Description	hexokinase 1
Omim ID	<a href="#">142600</a>
Gene Ontology	<a href="#">Hyperlink</a>

**Gene Summary**

Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this gene have been associated with hemolytic anemia due to hexokinase deficiency. Alternative splicing of this gene results in five transcript variants which encode different isoforms, some of which are tissue-specific. Each isoform has a distinct N-terminus; the remainder of the protein is identical among all the isoforms. A sixth transcript variant has been described, but due to the presence of several stop codons, it is not thought to encode a protein. [provided by RefSeq]

**Other Designations**

OTTHUMP00000019725|brain form hexokinase|glycolytic enzyme

**Publication Reference**

- [HK Utrecht: missense mutation in the active site of human hexokinase associated with hexokinase deficiency and severe nonspherocytic hemolytic anemia.](#)

van Wijk R, Rijksen G, Huizinga EG, Nieuwenhuis HK, van Solinge WW.

Blood 2003 Jan; 101(1):345.

- [Gene expression and biological significance of hexokinase in erythroid cells.](#)

Murakami K, Kanno H, Tancabelic J, Fujii H.

Acta Haematologica 2002 Nov; 108(4):204.

- [Human HKR isozyme: organization of the hexokinase I gene, the erythroid-specific promoter, and transcription initiation site.](#)

Murakami K, Kanno H, Miwa S, Piomelli S.

Molecular Genetics and Metabolism 1999 Jun; 67(2):118.

**Pathway**

- [Amino sugar and nucleotide sugar metabolism](#)
- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)

- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Fructose and mannose metabolism](#)
- [Galactose metabolism](#)
- [Glycolysis / Gluconeogenesis](#)
- [Insulin signaling pathway](#)
- [Metabolic pathways](#)
- [Starch and sucrose metabolism](#)
- [Streptomycin biosynthesis](#)
- [Type II diabetes mellitus](#)

## Disease

- [Alzheimer Disease](#)
- [Attention Deficit Disorder with Hyperactivity](#)
- [Diabetes Mellitus](#)
- [Diseases in Twins](#)
- [Genetic Predisposition to Disease](#)
- [Obesity](#)
- [Tobacco Use Disorder](#)