

**HXK I Polyclonal Antibody**  
Catalog # AP70448**Specification****HXK I Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P19367</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**HXK I Polyclonal Antibody - Additional Information**

Gene ID 3098

**Other Names**

HK1; Hexokinase-1; Brain form hexokinase; Hexokinase type I; HK I

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**HXK I Polyclonal Antibody - Protein Information**Name HK1 ([HGNC:4922](#))**Function**

Catalyzes the phosphorylation of various hexoses, such as D- glucose, D-glucosamine, D-fructose, D-mannose and 2-deoxy-D-glucose, to hexose 6-phosphate (D-glucose 6-phosphate, D-glucosamine 6-phosphate, D-fructose 6-phosphate, D-mannose 6-phosphate and 2-deoxy-D-glucose 6- phosphate, respectively) (PubMed:<a href="http://www.uniprot.org/citations/1637300" target="\_blank">1637300</a>, PubMed:<a href="http://www.uniprot.org/citations/25316723" target="\_blank">25316723</a>, PubMed:<a href="http://www.uniprot.org/citations/27374331" target="\_blank">27374331</a>). Does not phosphorylate N-acetyl-D-glucosamine (PubMed:<a href="http://www.uniprot.org/citations/27374331" target="\_blank">27374331</a>). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (By similarity). Involved in innate immunity and inflammation by acting as a pattern recognition receptor for bacterial peptidoglycan (PubMed:<a href="http://www.uniprot.org/citations/27374331" target="\_blank">27374331</a>). When released in the cytosol, N-acetyl-D-glucosamine component of bacterial peptidoglycan inhibits the hexokinase activity of HK1 and causes its dissociation from mitochondrial outer membrane,

thereby activating the NLRP3 inflammasome (PubMed:<a href="http://www.uniprot.org/citations/27374331" target="\_blank">27374331</a>).

#### Cellular Location

Mitochondrion outer membrane; Peripheral membrane protein. Cytoplasm, cytosol. Note=The mitochondrial-binding peptide (MBP) region promotes association with the mitochondrial outer membrane (Probable). Dissociates from the mitochondrial outer membrane following inhibition by N-acetyl-D-glucosamine, leading to relocation to the cytosol (PubMed:27374331).

#### Tissue Location

Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502). {ECO:0000269|PubMed:10978502, ECO:0000269|Ref.6}

### HXK I Polyclonal Antibody - 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](#)

### HXK I Polyclonal Antibody - Images



