

# HK1 antibody - N-terminal region

Rabbit Polyclonal Antibody

Catalog # AI14605

## Product Information

<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P19367</a>
<b>Other Accession</b>	<a href="#">NM_033498</a> , <a href="#">NP_277033</a>
<b>Reactivity</b>	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine
<b>Predicted</b>	Human, Mouse, Rabbit, Zebrafish, Pig, Chicken, Dog, Guinea Pig, Horse, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	102486

## Additional Information

<b>Gene ID</b>	3098
<b>Alias Symbol</b>	HK1-ta, HK1-tb, HK1-tc, HKI, HXK1
<b>Other Names</b>	Hexokinase-1, 2.7.1.1, Brain form hexokinase, Hexokinase type I, HK I, HK1
<b>Format</b>	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
<b>Reconstitution &amp; Storage</b>	Add 50 ul of distilled water. Final anti-HK1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
<b>Precautions</b>	HK1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

<b>Name</b>	HK1 ( <a href="#">HGNC:4922</a> )
<b>Function</b>	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="#">1637300</a> , PubMed: <a href="#">25316723</a> , PubMed: <a href="#">27374331</a> ). Does not phosphorylate N-acetyl-D-glucosamine (PubMed: <a href="#">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="#">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:[27374331](#)).

#### 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}

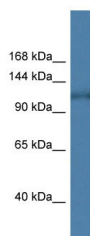
## References

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Ruzzo A.,et al.Biochem. J. 331:607-613(1998).  
Deloukas P.,et al.Nature 429:375-381(2004).  
Andreoni F.,et al.Biochim. Biophys. Acta 1493:19-26(2000).  
Murakami K.,et al.Blood 90:272-272(1998).

## Images

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WB Suggested Anti-HK1 Antibody Titration: 1.0 µg/ml  
Positive Control: Fetal Heart

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.