

HK1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI14605**Specification**

HK1 antibody - N-terminal region - Product Information

Application	WB
Primary Accession	P19367
Other Accession	NM_033498 , NP_277033
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog
Predicted	Human, Mouse, Rabbit, Pig, Chicken, Horse, Bovine, Guinea Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	103kDa KDa

HK1 antibody - N-terminal region - Additional Information**Gene ID** 3098**Alias Symbol** **HK1-ta, HK1-tb, HK1-tc, HKI, HXK1****Other Names**

Hexokinase-1, 2.7.1.1, Brain form hexokinase, Hexokinase type I, HK I, HK1

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

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.

Precautions

HK1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

HK1 antibody - N-terminal region - 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:1637300, PubMed:25316723, PubMed:27374331). Does not

phosphorylate N-acetyl-D-glucosamine (PubMed:27374331). 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:27374331). 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

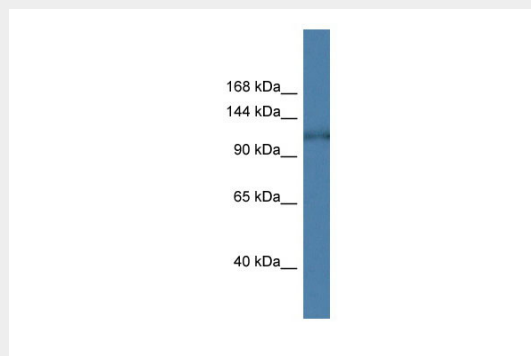
Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502). {ECO:0000269|PubMed:10978502, ECO:0000269|Ref.6}

HK1 antibody - N-terminal region - 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](#)

HK1 antibody - N-terminal region - Images



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

HK1 antibody - N-terminal region - References

Nishi S., et al. Biochem. Biophys. Res. Commun. 157:937-943(1988).
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).