

Hexokinase 1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52715

Specification

Hexokinase 1 Antibody - Product Information

Application	WB
Primary Accession	P19367
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	102 KDa

Hexokinase 1 Antibody - Additional Information

Gene ID 3098

Other Names

BB404130; Brain form hexokinase; dea; EC 2.7.1.1; Glycolytic enzyme; HEXOKIN; Hexokinase PI; Hexokinase type I; Hexokinase, tumor isozyme; Hexokinase-1; Hexokinase-A; HK I; HK1; HK1 tb; Hk1-s; HK1-ta; HK1-tb; HK1-tc; HKD; HKI; HMSNR; HXK1; HXK1_HUMAN; mHk1-s.

Dilution

WB~~1:1000

Format

Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

Storage

Store at -20 °C.Stable for 12 months from date of receipt

Hexokinase 1 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: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

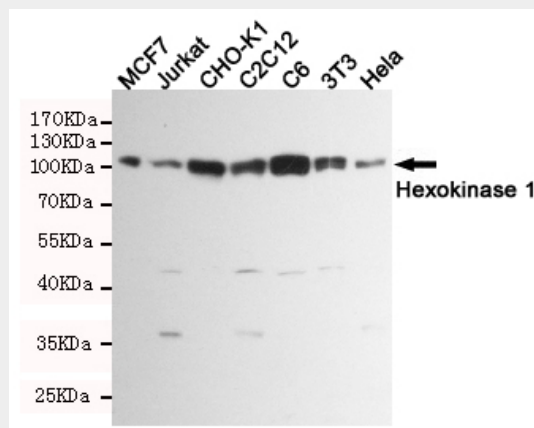
Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502). {ECO:0000269|PubMed:10978502, ECO:0000269|Ref.6}

Hexokinase 1 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](#)

Hexokinase 1 Antibody - Images



Western blot detection of Hexokinase 1 in MCF7, Jurkat, CHO-K1, C2C12, C6, 3T3 and HeLa cell lysates using Hexokinase 1 mouse mAb (1:1000 diluted). Predicted band size: 102KDa. Observed band size: 102KDa.

Hexokinase 1 Antibody - 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).