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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
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Storage
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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).

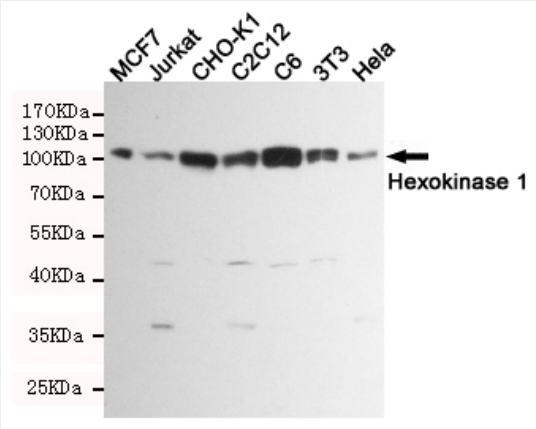
Tissue Location
Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502). {ECO:0000269|PubMed:10978502, ECO:0000269|Ref.6}

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 Cytomety
- 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).