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Anti-Hexokinase 1 HK1 Rabbit Monoclonal Antibody

Catalog # ABO14121

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	P19367
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Hexokinase 1 HK1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

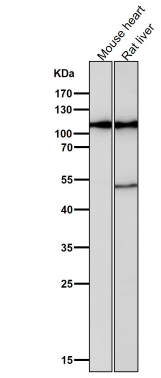
Additional Information

Gene ID	3098
Other Names	Hexokinase-1, 2.7.1.1, Brain form hexokinase, Hexokinase type I, HK I, Hexokinase-A, HK1 (HGNC:4922)
Calculated MW	102486
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 FC 1:200
Subcellular Localization	Mitochondrion outer membrane. Its hydrophobic N-terminal sequence may be involved in membrane binding.
Tissue Specificity	Isoform 2 is erythrocyte specific. Isoform 3 and isoform 4 are testis-specific.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: EOF-8
Immunogen	A synthesized peptide derived from human Hexokinase 1
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

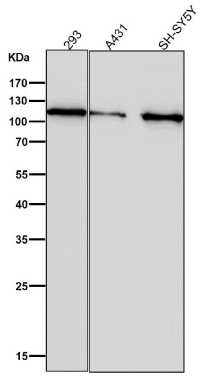
Protein Information

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}

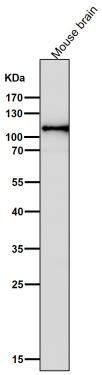
Images



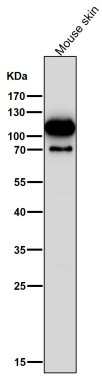
All lanes use the Antibody at 1:1W dilution for 1 hour at room temperature.



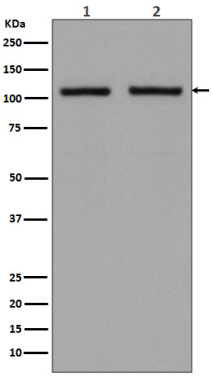
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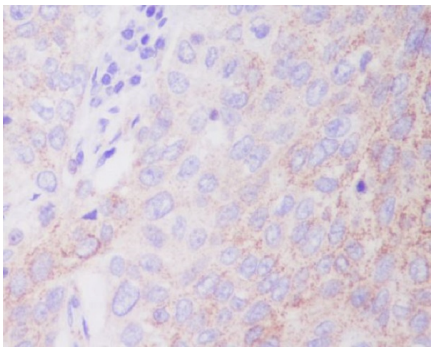
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Western blot analysis of Hexokinase 1 expression in (1) MCF-7 cell lysate; (2) 293T cell lysate.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Hexokinase 1 Antibody.

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