Best Tools for immunology Research

Hexokinase 1 mouse mAb

Catalog No :	YM1282
Reactivity :	Human;Mouse;Rat
Applications :	WB
Target :	HXK I
Fields :	>>Glycolysis / Gluconeogenesis;>>Fructose and mannose metabolism;>>Galactose metabolism;>>Starch and sucrose metabolism;>>Amino sugar and nucleotide sugar metabolism;>>Neomycin, kanamycin and gentamicin biosynthesis;>>Metabolic pathways;>>Carbon metabolism;>>Biosynthesis of nucleotide sugars;>>HIF-1 signaling pathway;>>Insulin signaling pathway;>>Type II diabetes mellitus;>>Carbohydrate digestion and absorption;>>Shigellosis;>>Central carbon metabolism in cancer
Gene Name :	hk1
Human Gene Id :	3098
Human Swiss Prot No :	P19367
Mouse Swiss Prot No :	P17710
Immunogen :	Purified recombinant human Hexokinase 1 protein fragments expressed in E.coli
Specificity :	This antibody detects endogenous levels of Hexokinase 1 and does not cross-react with Hexokinase 2 and other proteins.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	wb 1:1000
Purification :	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
	1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 102kD

Cell Pathway : Glycolysis / Gluconeogenesis;Fructose and mannose metabolism;Galactose metabolism;Starch and sucrose metabolism;Amino sugar and nucleotide sugar metabolism;Insulin_Receptor;Type II diabetes mellitus;

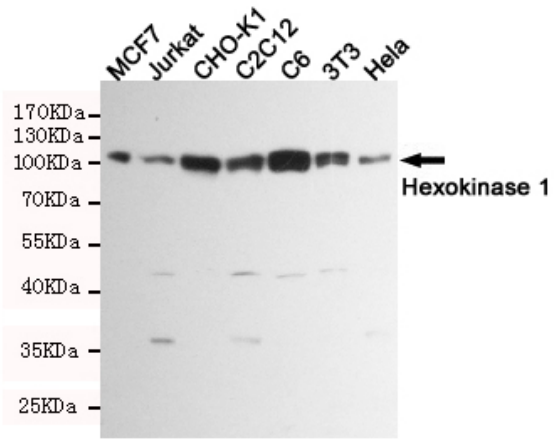
Background : Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this gene have been associated with hemolytic anemia due to hexokinase deficiency. Alternative splicing of this gene results in several transcript variants which encode different isoforms, some of which are tissue-specific. [provided by RefSeq, Apr 2016],

Function : catalytic activity:ATP + D-hexose = ADP + D-hexose 6-phosphate.,disease:Defects in HK1 are the cause of hexokinase deficiency [MIM:235700]. Hexokinase deficiency is a rare autosomal recessive disease with nonspherocytic hemolytic anemia as the predominant clinical feature.,domain:The N- and C-terminal halves of this hexokinase show extensive sequence similarity to each other. The catalytic activity is associated with the C-terminus while regulatory function is associated with the N-terminus.,enzyme regulation:Hexokinase is an allosteric enzyme inhibited by its product Glc-6-P.,miscellaneous:In vertebrates there are four major glucose-phosphorylating isoenzymes, designated hexokinase I, II, III and IV (glucokinase).,online information:Hexokinase entry,pathway:Carbohydrate metabolism; hexose metabolism.,similarity:Belongs to the hexokinase family.,subcellular location:Its hydrophobic N-ter

Subcellular Location : Mitochondrion outer membrane ; Peripheral membrane protein . Cytoplasm, cytosol . 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). .

Expression : Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502).

Products 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.