

Hexokinase II mouse mAb

Catalog No :	YM1298
Reactivity :	Rat;Mouse;Monkey
Applications :	WB
Target :	HXK II
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 :	hk2
Human Gene Id :	3099
Human Swiss Prot No :	P52789
Mouse Swiss Prot No :	O08528
Immunogen :	Recombinant human Hexokinase II protein.
Specificity :	This antibody detects endogenous levels of Hexokinase II and does not cross-react with related proteins.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	wb 1:500
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;

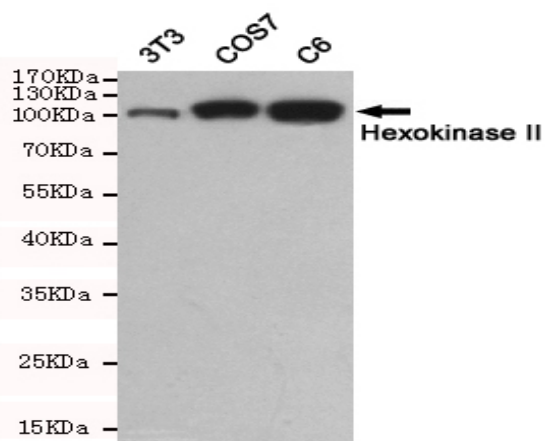
Background : Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes hexokinase 2, the predominant form found in skeletal muscle. It localizes to the outer membrane of mitochondria. Expression of this gene is insulin-responsive, and studies in rat suggest that it is involved in the increased rate of glycolysis seen in rapidly growing cancer cells. [provided by RefSeq, Apr 2009],

Function : catalytic activity: ATP + D-hexose = ADP + D-hexose 6-phosphate., 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., polymorphism: Although found in NIDDM patients, genetic variations of HK2 do not contribute to the disease., similarity: Belongs to the hexokinase family., subcellular location: Its hydrophobic N-terminal sequence may be involved in membrane binding., subunit: Monomer., tissue specificity: Predominant hex

Subcellular Location : Mitochondrion outer membrane ; Peripheral membrane protein . Cytoplasm, cytosol . The mitochondrial-binding peptide (MBP) region promotes association with the mitochondrial outer membrane (PubMed:29298880). The interaction with the mitochondrial outer membrane via the mitochondrial-binding peptide (MBP) region promotes higher stability of the protein (PubMed:29298880). Release from the mitochondrial outer membrane into the cytosol induces permeability transition pore (PTP) opening and apoptosis (PubMed:18350175). .

Expression : Predominant hexokinase isozyme expressed in insulin-responsive tissues such as skeletal muscle.

Products Images



Western blot detection of Hexokinase II in 3T3, COS7 and C6 cell lysates using Hexokinase II mouse mAb (dilution 1:500). Predicted band size: 102 kDa. Observed band size: 102 kDa.