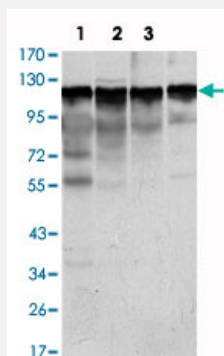


HK1 monoclonal antibody, clone 3A10

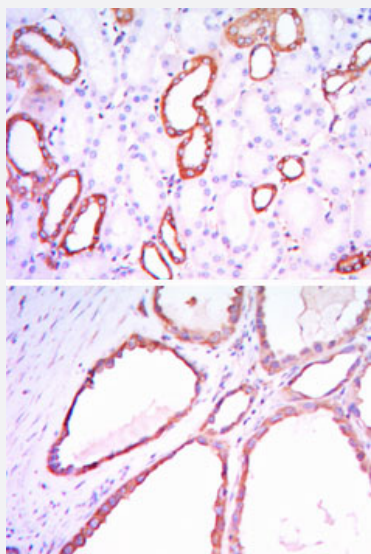
Catalog # MAB10683 Size 100 uL

Applications



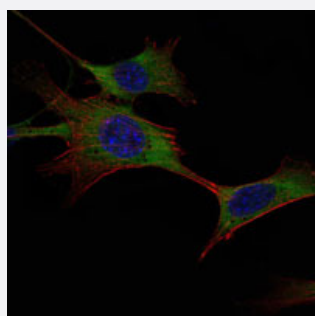
Western Blot (Cell lysate)

Western blot analysis using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) against Jurkat (1) , HeLa (2) , HepG2 (3) and NIH/3T3 (4) cell lysate.



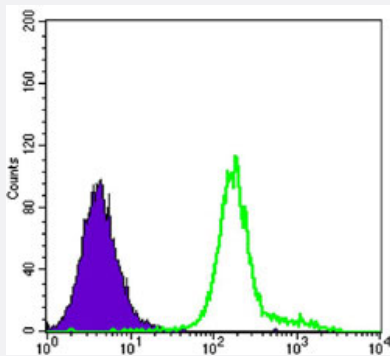
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human kidney tissues using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) with DAB staining.



Immunofluorescence

Immunofluorescence analysis of NIH/3T3 cells using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) (green) . Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow Cytometry

Flow cytometric analysis of K-562 cells using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) (green) and negative control (purple).

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant HK1.
Immunogen	Recombinant protein corresponding to human HK1.
Host	Mouse
Theoretical MW (kDa)	120
Reactivity	Human, Mouse, Rat
Form	Liquid
Isotype	IgG1
Recommend Usage	ELISA (1:10000) Western Blot (1:500-1:2000) Immunohistochemistry (1:200-1:1000) Immunofluorescence (1:200-1:1000) Flow cytometry (1:200-1:400) The optimal working dilution should be determined by the end user.
Storage Buffer	In ascites (0.03% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western blot analysis using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) against Jurkat (1) , HeLa (2) , HepG2 (3) and NIH/3T3 (4) cell lysate.

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human kidney tissues using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) with DAB staining.

- Immunofluorescence

Immunofluorescence analysis of NIH/3T3 cells using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) (green) . Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

- Enzyme-linked Immunoabsorbent Assay

- Flow Cytometry

Flow cytometric analysis of K-562 cells using HK1 monoclonal antibody, clone 3A10 (Cat # MAB10683) (green) and negative control (purple).

Gene Info — HK1

Entrez GeneID [3098](#)

Gene Name HK1

Gene Alias HK1-ta, HK1-tb, HK1-tc, HKI, HXK1

Gene Description hexokinase 1

Omim ID [142600](#)

Gene Ontology [Hyperlink](#)

Gene Summary

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 five transcript variants which encode different isoforms, some of which are tissue-specific. Each isoform has a distinct N-terminus; the remainder of the protein is identical among all the isoforms. A sixth transcript variant has been described, but due to the presence of several stop codons, it is not thought to encode a protein. [provided by RefSeq]

Other Designations OTTHUMP00000019725|brain form hexokinase|glycolytic enzyme

Publication Reference

- [Overexpression of Protein Phosphatase 2 Regulatory Subunit B"Alpha Promotes Glycolysis by Regulating Hexokinase 1 in Hepatocellular Carcinoma.](#)

Ning Jiao, Wan Sheng Ji, Biao Zhang, Yu Kui Shang, Yu Chen Zhang, Wei Qun Yu, Hai Long Jin, Chao Li, Cheng Ying Zhang, Cheng Yan, Wen Yue, Qing Zhang.

Biomedical and Environmental Sciences 2022 Jul; 35(7):622.

Application: IF, Human, HepG2, Huh7 cells

Pathway

- [Amino sugar and nucleotide sugar metabolism](#)
- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Fructose and mannose metabolism](#)
- [Galactose metabolism](#)
- [Glycolysis / Gluconeogenesis](#)
- [Insulin signaling pathway](#)
- [Metabolic pathways](#)
- [Starch and sucrose metabolism](#)
- [Streptomycin biosynthesis](#)
- [Type II diabetes mellitus](#)

Disease

- [Alzheimer Disease](#)
- [Attention Deficit Disorder with Hyperactivity](#)
- [Diabetes Mellitus](#)
- [Diseases in Twins](#)
- [Genetic Predisposition to Disease](#)
- [Obesity](#)
- [Tobacco Use Disorder](#)