



# HXK I Rabbit mAb

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| <b>Catalog No</b>                  | YP-rAb-17346                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Reactivity</b>                  | Human,Mouse,Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Applications</b>                | WB,IHC,IF,ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Gene Name</b>                   | HK1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Name</b>                | Hexokinase-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purification Process</b>        | Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Specificity</b>                 | Endogenous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Formulation</b>                 | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>                      | Monoclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Dilution</b>                    | IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000;<br>Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Concentration</b>               | 0.5 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Stability</b>           | -15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Synonyms</b>                    | HXK I;Hexokinase-1;HK1 ; Hexokinase-1 ; Brain form hexokinase ; Hexokinase type I ; HK I;HK1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Observed Band</b>               | 103kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Calculated Molecular Weight</b> | 103kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Cell Pathway</b>                | 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). .                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Tissue Specificity</b>          | Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Function</b>                    | 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-terminal sequence may be involved in membrane binding.,subunit:Monomer.,tissue specificity:Isoform 2 is erythrocyte specific; isoform 3 and isoform 4 are testis-specific.,

## Background

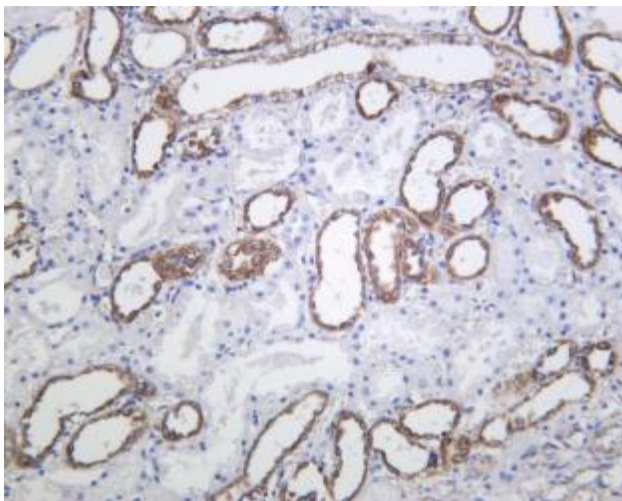
Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this gene have been associated with hemolytic anemia due to hexokinase 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],

## matters needing attention

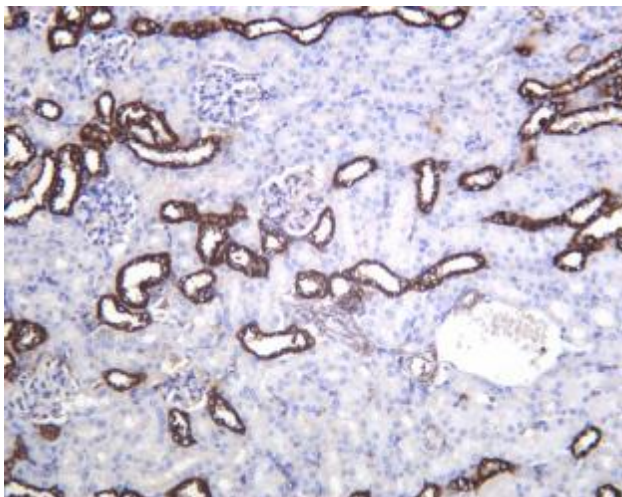
Avoid repeated freezing and thawing!

## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

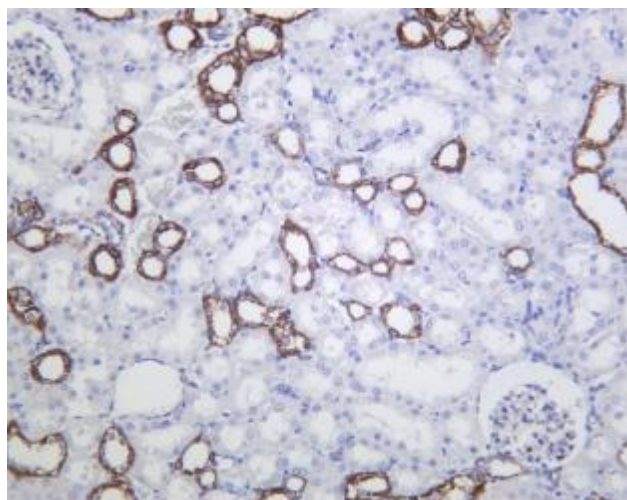


Human kidney was stained with anti-HXK I Rabbit antibody

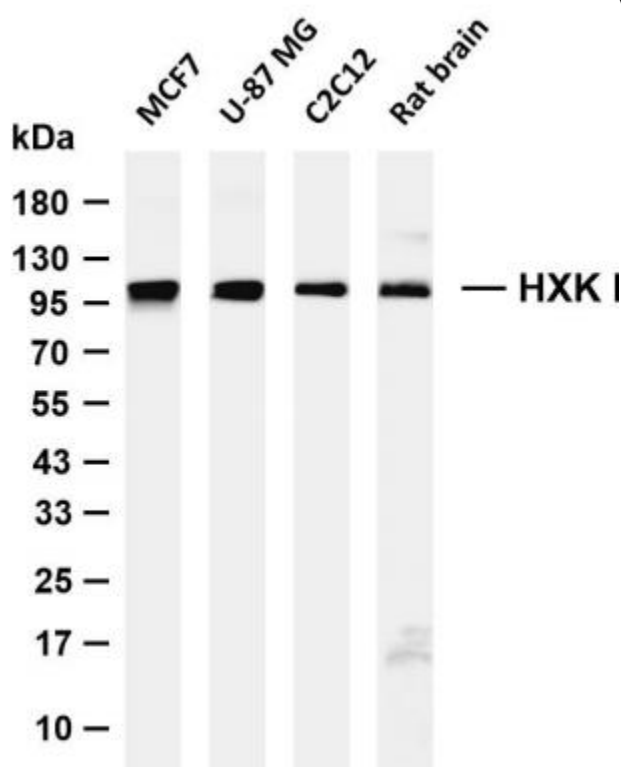


Mouse kidney was stained with anti-HXK I Rabbit antibody





Rat kidney was stained with anti-HXK I Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-HXK I antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: U-87 MG Lane 3: C2C12 Lane 4: Rat brain Predicted band size: 103kDa Observed band size: 103kDa

