Product Name: HXK I Rabbit Polyclonal Antibody
Catalog #: APRab12309
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight	109kDa

Antigen Information

Gene Name	HK1
Alternative Names	HK1; Hexokinase-1; Brain form hexokinase; Hexokinase type I; HK I
Gene ID	3098.0
SwissProt ID	P19367
Immunogen	The antiserum was produced against synthesized peptide derived from human HXK1. AA range:31-80

Background

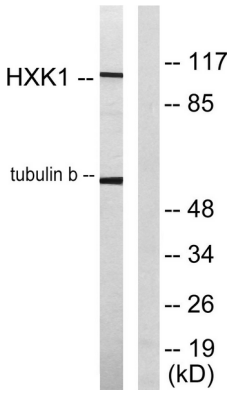
Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This

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],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.,

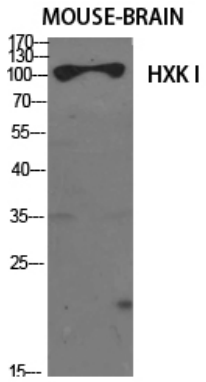
Research Area

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

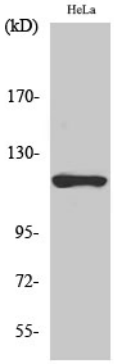
Image Data



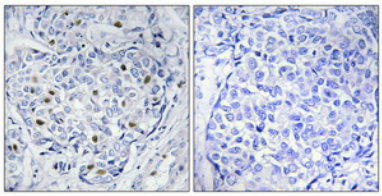
Western blot analysis of lysates from HeLa cells, using HXK1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using HXK I Polyclonal Antibody diluted at 1: 1000



Western Blot analysis of HeLa cells using HXK I Polyclonal Antibody diluted at 1 : 1000



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100 （4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl （right） obtaned from antibody was pre-absorbed by immunogen peptide.