Data Sheet (Cat.No.TMAC-01816)

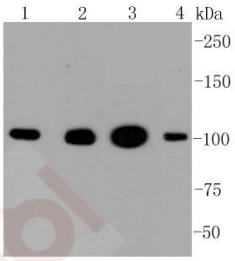
Anti-HK1 Antibody (7G677)

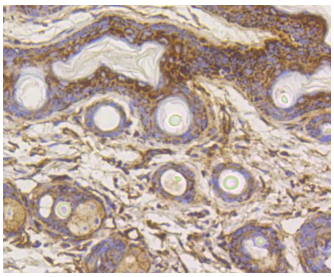
Product Details

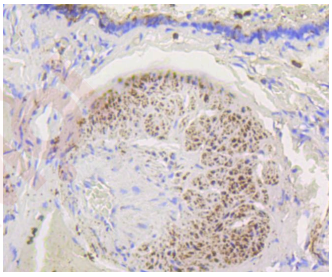
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 102 kDa.
Clone:	7G677
Purification:	ProA affinity purified

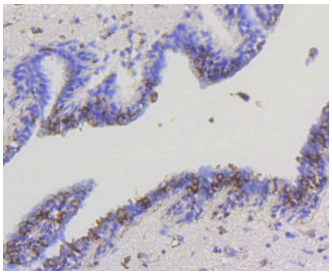
Applications

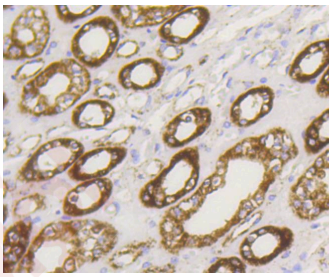
Verified Activity:	1. Western blot analysis of Hexokinase 1 on different lysates using anti-Hexokinase 1 antibody at 1/1,000 dilution. Positive control: Lane 1: Hela, Lane 2: 293, Lane 3: MCF-7, Lane 4: HepG2. 2. Immunohistochemical analysis of paraffin-embedded mouse skin tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 3. Immunohistochemical analysis of paraffin-embedded human lung tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 4. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 5. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 6. Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 7. Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Hexokinase 1 antibody. Counter stained with hematoxylin. 8. ICC staining Hexokinase 1 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS. 9. ICC staining Hexokinase 1 in CRC cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS. 10. ICC staining Hexokinase 1 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS. 11. Flow cytometric analysis of K562 cells with Hexokinase 1 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

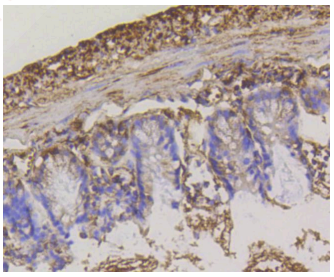


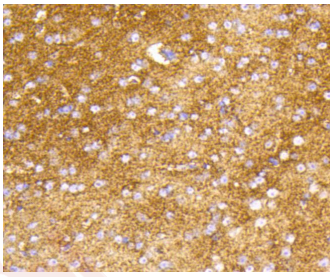


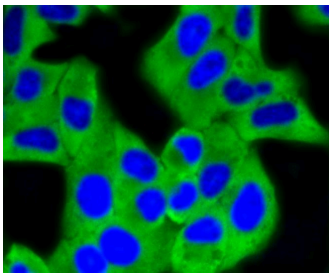


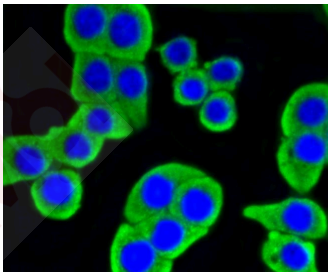


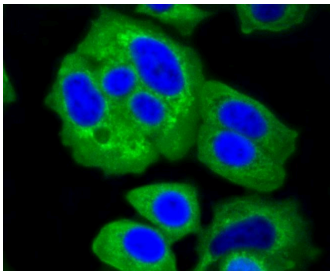


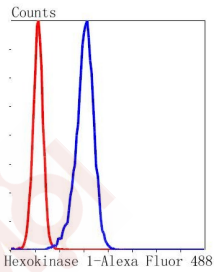












Application: FCM,ICC/IF,IHC,IP,WB

Recommended: WB: 1:1000-2000; IHC: 1:50-200; ICC/IF: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P19367

Synonyms: Hexokinase type I (HK I);Hexokinase-1;HK1;Hexokinase-A;Brain form hexokinase

Research Background

The hexokinases utilize Mg-ATP as a phosphoryl donor to catalyze the first step of intracellular glucose metabolism, the conversion of glucose to glucose-6-phosphate. Four hexokinase isoenzymes have been identified, including hexokinase I (HXK I), hexokinase II (HXK II), hexokinase III (HXK III) and hexokinase IV (HXK IV, also designated glucokinase or GCK). Hexokinases I-III each contain an N-terminal cluster of hydrophobic amino acids. Glucokinase lacks the N-terminal hydrophobic cluster. The hydrophobic cluster is thought to be necessary for membrane binding.

This is substantiated by the finding that glucokinase has lower affinity for glucose than do the other hexokinases. HXK I has been shown to be expressed in brain, kidney and heart tissues as well as in hepatoma cell lines. HXK II is involved in the uptake and utilization of glucose by adipose and skeletal tissues. Of the hexokinases, HXK III has the highest affinity for glucose. Glucokinase is expressed in pancreatic beta cells where it functions as a glucose sensor, determining the ??set point?? for insulin secretion.

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