

## Basic Information

<b>Product Name</b>	Anti-Hexokinase 1/HK1 Antibody (Clone#214)	
<b>Gene Name</b>	HK1	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, IF, ICC/IF, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E. coli-derived human Hexokinase 1/HK1 recombinant protein (Position: D17-R323). Human HK1 shares 95.8% and 95.1% amino acid (aa) sequence identity with mouse and rat HK1, respectively.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	120 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

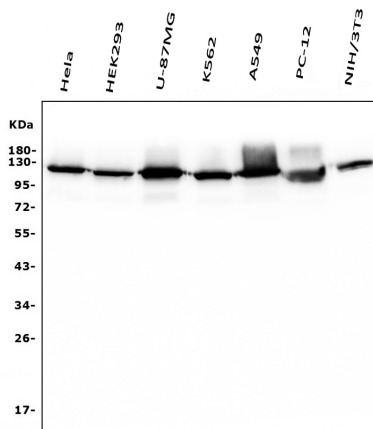
## Background Information

Hexokinase-1 (HK1) is an enzyme that in humans is encoded by the HK1 gene on chromosome 10. It is mapped to 10q22.1. 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.

## Reference

Anti-Hexokinase 1/HK1 Antibody (Clone#2I4)被引用在1文献中。

## Selected Validation Data



Western blot analysis of Hexokinase 1/HK1 using anti-Hexokinase 1/HK1 antibody (M01504-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HELA whole cell lysates,

Lane 2: human HEK293 whole cell lysates,

Lane 3: human U-87MG whole cell lysates,

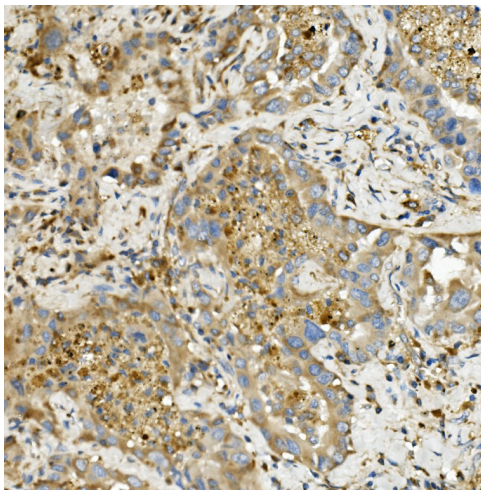
Lane 4: human K562 whole cell lysates,

Lane 5: human A549 whole cell lysates,

Lane 6: rat PC-12 whole cell lysates,

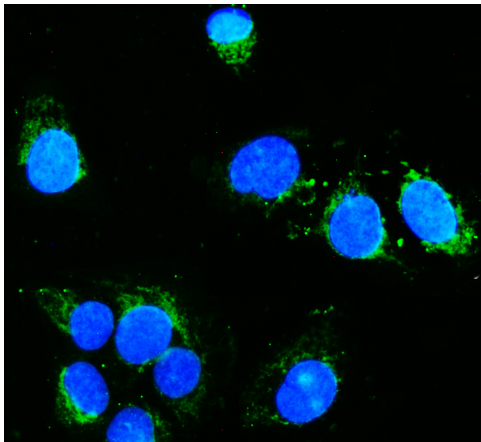
Lane 7: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-Hexokinase 1/HK1 antigen affinity purified monoclonal antibody (M01504-1) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Hexokinase 1/HK1 at approximately 120 kDa. The expected band size for Hexokinase 1/HK1 is at 102 kDa.



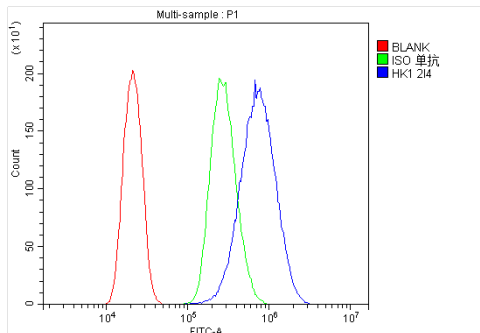
IHC analysis of Hexokinase 1/HK1 using anti-Hexokinase 1/HK1 antibody (M01504-1).

Hexokinase 1/HK1 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-Hexokinase 1/HK1 Antibody (M01504-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of Hexokinase 1/HK1 using anti-Hexokinase 1/HK1 antibody (M01504-1).

Hexokinase 1/HK1 was detected in an immunocytochemical section of Hela cells. The section was incubated with mouse anti-Hexokinase 1/HK1 Antibody (M01504-1) at a dilution of 1:100. Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of PC-3 cells using anti-Hexokinase 1/HK1 antibody (M01504-1).

Overlay histogram showing PC-3 cells stained with M01504-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Hexokinase 1/HK1 Antibody (M01504-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.