

Basic Information

Product Name	Anti-PKM2/PKM Antibody (Clone#11I4C3)	
Gene Name	PKM	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human PKM2, different from the related mouse sequence by five amino acids, and from the related rat sequence by four amino acids.	
Concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	58 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/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.

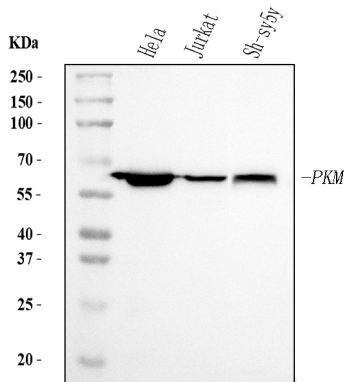
Background Information

PKM (Pyruvate Kinase, Muscle), also known as PK3 or PKM2, is an enzyme that in humans is encoded by the PKM gene. The activity of pyruvate kinase subtype M2 is increased by fructose 1, 6-bisphosphate (Fru-1, 6-P2). By in situ hybridization, Popescu and Cheng (1990) mapped the THBP1 gene to 15q24-q25. Ashizawa et al. (1991) manipulated the intracellular Fru-1, 6-P2 concentration in several mammalian cell lines, including human, by varying the glucose concentration in the media. Using a novel proteomic screen for phosphotyrosine-binding proteins, Christofk et al. (2008) observed that PKM2 binds directly and selectively to tyrosine-phosphorylated peptides.

Reference

Anti-PKM2/PKM Antibody (Clone#11I4C3)被引用在2文献中。

Selected Validation Data



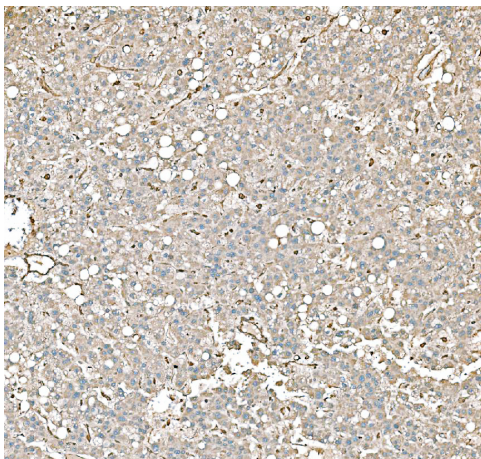
Western blot analysis of PKM2/PKM using anti-PKM2/PKM antibody (M01173-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HeLa whole cell lysates,

Lane 2: Jurkat whole cell lysates,

Lane : Sh-sy5y whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-PKM2/PKM antigen affinity purified monoclonal antibody (M01173-1) 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 PKM2/PKM at approximately 58 kDa. The expected band size for PKM2/PKM is at 58 kDa.



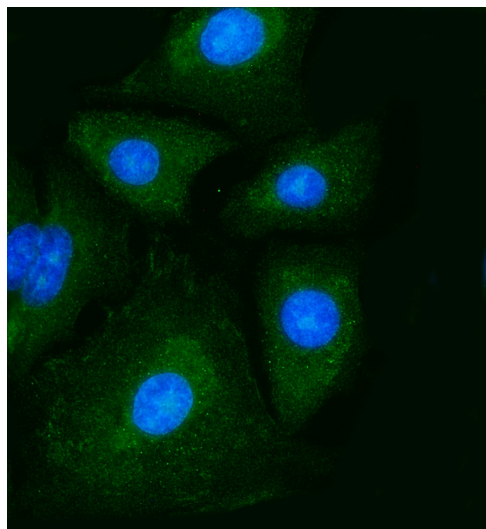
IHC analysis of PKM2/PKM using anti-PKM2/PKM antibody (M01173-1).

PKM2/PKM was detected in a paraffin-embedded section of human liver cancer tissue.

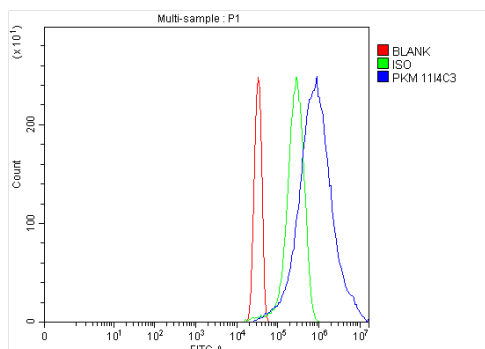
Biotinylated goat anti-mouse IgG was used as secondary antibody.

The tissue section was incubated with mouse anti-PKM2/PKM Antibody (M01173-1) 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 PKM2/PKM using anti-PKM2/PKM antibody (M01173-1). PKM2/PKM was detected in an immunocytochemical section of A549 cells. The section was incubated with mouse anti-PKM2/PKM Antibody (M01173-1) 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 HeLa cells using anti-PKM2/PKM antibody (M01173-1).

Overlay histogram showing HeLa cells stained with M01173-1 (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-PKM2/PKM Antibody (M01173-1) 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.