Pyruvate Kinase monoclonal antibody

Catalog: MB66670 Host: Mouse Reactivity: Human, Mouse, Rat, Monkey

BackGround:

Pyruvate kinase is a glycolytic enzyme that catalyses the conversion of phosphoenolpyruvate to pyruvate. In mammals, the M1 isoform (PKM1) is expressed in most adult tissues. The M2 isoform (PKM2) is an alternatively spliced variant of M1 that is expressed during embryonic development. Research studies found that cancer cells exclusively express PKM2. PKM2 is shown to be essential for aerobic glycolysis in tumors, known as the Warburg effect. When cancer cells switch from the M2 isoform to the M1 isoform, aerobic glycolysis is reduced and oxidative phosphorylation is increased. These cells also show decreased tumorigenicity in mouse xenografts. Recent studies showed that PKM2 is not essential for all tumor cells. In the tumor model studied, PKM2 was found to be active in the non-proliferative tumor cell population and inactive in the proliferative tumor cell population.

Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Molecular Weight:

~ 50 kDa

Swiss-Prot:

P14618

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100)

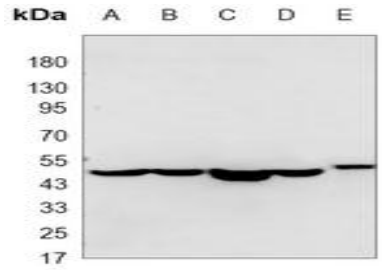
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

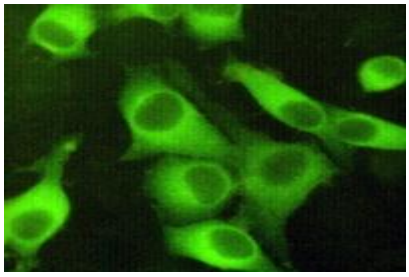
Specificity:

Recognizes endogenous levels of Pyruvate Kinase protein.

DATA:



Western blot analysis of Pyruvate Kinase expression in COS7 (A), PC12 (B), C6 (C), NIH3T3 (D), Hela (E) whole cell lysates.



Immunofluorescent analysis of Pyruvate Kinase staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 ℃ in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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