

PHGDH mouse monoclonal antibody

Catalog: MB4038

Host: Mouse

Reactivity: Human, Mouse, Rat

BackGround:

Mammalian cells synthesize serine de novo by diverting a portion of the glycolytic intermediate 3-phosphoglycerate into the phosphorylated pathway of serine synthesis. This shift supports anabolism by providing precursors for the biosynthesis of proteins, nucleotides, creatine, porphyrins, phospholipids, and glutathione. Phosphoglycerate dehydrogenase (PHGDH) catalyzes the first step in the serine biosynthesis pathway by converting 3-phosphoglycerate into phosphohydroxy pyruvate.

Research studies demonstrate that an increase in serine biosynthesis supports growth and proliferation of cancer cells, which is supported by amplification and overexpression of PHGDH in a subset of melanoma and breast cancers. Suppression of PHGDH expression in cell lines with elevated PHGDH levels causes a strong decrease in cell proliferation and inhibits tumor growth in vivo. Additional evidence suggests that PHGDH interacts with and stabilizes FoxM1, which promotes the proliferation, invasion, and tumorigenicity of glioma cells.

Product:

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

~ 57 kDa

Swiss-Prot:

O43175

Purification&Purity:

The antibody was affinity-purified from mouse ascites fluids or tissue culture supernatant by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB 1:2000, IHC 1:150

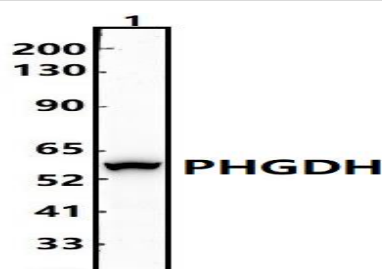
Storage&Stability:

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

Isotype:

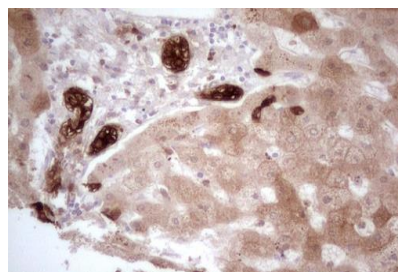
IgG2a

DATA:



Western blot (WB) analysis of PHGDH mouse monoclonal antibody at 1:500 dilution

Lane1:Hela whole cell lysate(30ug)



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-PHGDH mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120 °C for 3min)

Note:

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

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