



PGK1 (Phospho-Ser256) Antibody

#58029

Number: 58029

Amount: 100µg/100µl

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Storage/Stability: Store at -20°C/1 year

Immunogen: synthetic phosphopeptide corresponding to residues surrounding Ser256 of human PGK1

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.

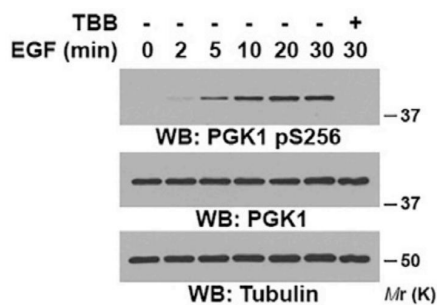
Specificity/Sensitivity: PGK1 (Phospho-Ser256) antibody detects endogenous levels of PGK1 only when phosphorylated at Serine256 .

Reactivity: Human

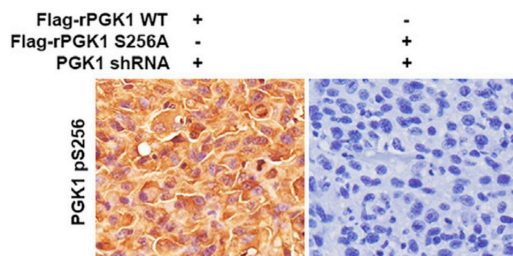
Applications:

Predicted MW: 43KD

WB :1:500~1:1000 IHC:1:50-200



U87/EGFR cells pretreated with or without TBB (20 mM) for 30 min were treated with or without EGF (100 ng/mL) for the indicated periods. Total cell lysates were prepared. Immunoblotting with the indicated antibodies was performed.



PGK1-depleted U87/EGFRvIII cells with reconstituted expression of WT Flag-rPGK1 or Flag-rPGK1 S256A protein were intracranially injected into athymic nude mice (6 mice/group). Immunohistochemical analyses of the indicated tumor sections derived from PGK1-depleted U87/EGFRvIII cells with reconstituted expression of WT Flag-rPGK1 or Flag-rPGK1 S256A protein were performed with the indicated antibodies.

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Background :EGFR and ERK-activated casein kinase 2a(CK2a) phosphorylates nuclear phosphoglycerate kinase (PGK) 1 at S256, resulting in interaction of PGK1 with CDC7, promoting the recruitment of DNA helicase to replication origins, DNA replication, cell proliferation, and brain tumorigenesis. The phosphorylation levels of PGK1 S256 were positively correlated with each other in glioma specimens [1] .

Reference:[1] Li X, Qian X, Jiang H, Xia Y, Zheng Y, Li J, Huang BJ, Fang J, Qian CN, Jiang T, Zeng YX, Lu Z. Nuclear PGK1 Alleviates ADP-Dependent Inhibition of CDC7 to Promote DNA Replication. *Mol Cell*. 2018 Nov 15;72(4):650-660.e8. doi: 10.1016/j.molcel.2018.09.007.