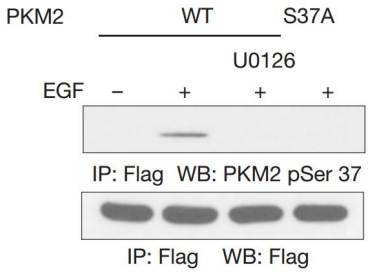
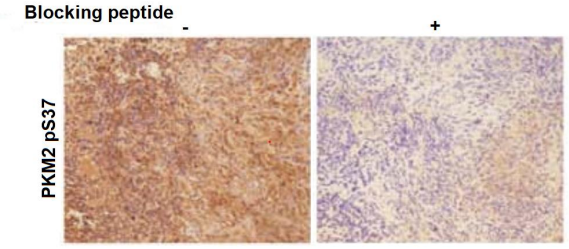
PKM2 (Phospho-Ser37) Antibody

#12822

Catalog Number: 12822
Amount: 50μg/50μl, 100μg/100μl
Swiss-Prot No. :P14618
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℃/1 year
Immunogen: The antiserum was produced against synthesized phosphopeptide derived from Human PKM2 around the phosphorylation site of serine37.
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:PKM2(Phospho-Ser37) Antibody detects endogenous levels of PKM2 protein only when phosphorylated at serine37
Reactivity: Human
Applications:
Predicted MW: 58 kd
WB:1:500~1:1000 IHC :1:50~1:200



Flag–PKM2 was immunoprecipitated (IP) with anti-Flag antibody from U87/EGFR cells pretreated with or without U0126(20 μM) for 30 min before treating with EGF (100 ng/ml) for 30 min.



IHC analyses of human GBM tissues were performed with the indicated antibody in the presence or absence of specific blocking peptides.

Background :

Pyruvate kinase M2 (PKM2) is upregulated in multiple cancer types and contributes to the Warburg effect. Relative research demonstrated that EGFR-activated ERK2 binds directly to PKM2 Ile 429/Leu 431 through the ERK2 docking groove and phosphorylates PKM2 at Ser 37. Phosphorylated PKM2 Ser 37 recruits PIN1 for cis–trans isomerization of PKM2, which promotes PKM2 binding to importin α5 and translocating to the nucleus. In addition, levels of PKM2 Ser 37phosphorylation correlate with EGFR and ERK1/2 activity in human glioblastoma specimens [1]

Reference :

[1] Yang W, Zheng Y, Xia Y, Ji H, Chen X, Guo F, Lyssiotis CA, Aldape K, Cantley LC, Lu Z. ERK1/2-dependent phosphorylation and nuclear translocation of PKM2 promotes the Warburg effect. ***Nat Cell Biol.*** 2012 Dec;14(12):1295-304. doi: 10.1038/ncb2629.