# PDHK1 (Phospho-Thr388 ) Antibody

#58026

**Number:** 58026

**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℃/1 year

**Immunogen:** synthetic phosphopeptide corresponding to residues surrounding Thr388 of human PDHK1

**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 phospholation site.

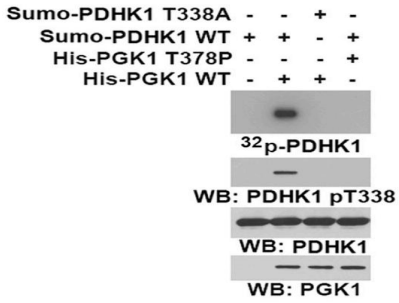
**Specificity/Sensitivity:** PDHK1（Phospho-Thr388)antibody detects endogenous levels of PDHK1 only when phospholated at Threonine388 .

**Reactivity:** Human

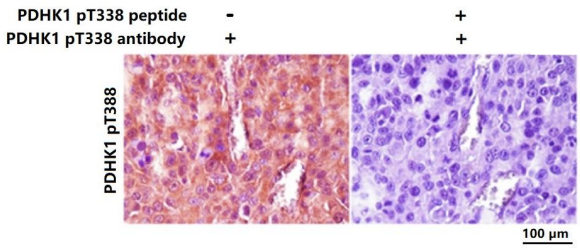
**Applications:**

Predicted MW: 43KD

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




In vitro phosphorylation analyses with autoradiography were performed by mixing purified WT PGK1 or PGK1 T378P with purified WT PDHK1 or PDHK1 T338A in the presence of [ γ -32P] ATP. Immunoblotting analyses were performed with the indicated antibodies.




Validation of Antibody Specificities. IHC analyses of human GBM tissues were performed with the indicated antibodies in the presence or absence of specific blocking peptides. Scale bar, 100 μm.

**Background** :Mitochondrial PGK1 acts as a protein kinase to phosphorylate pyruvate dehydrogenase kinase 1 (PDHK1) at T338, which activates PDHK1 to phosphorylate and inhibit the pyruvate dehydrogenase (PDH) complex. This reduces mitochondrial pyruvate utilization, suppresses reactive oxygen species production, increases lactate production, and promotes brain tumorigenesis. PDHK1 T338 phosphorylation levels correlate with poor prognosis in glioblastoma patients[1] .

**Reference:**[1] Li X, Jiang Y, Meisenhelder J, Yang W, Hawke DH, Zheng Y, Xia Y, Aldape K, He J, Hunter T, Wang L, Lu Z. Mitochondria-Translocated PGK1 Functions as a Protein Kinase to Coordinate Glycolysis and the TCA Cycle in Tumorigenesis. ***Mol Cell.*** 2016 Mar 3;61(5):705-719. doi: 10.1016/j.molcel.2016.02.009. PMID: 26942675.