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FBP1 （Phospho-Ser170 ） Antibody

#58014

Number: 58014

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 Ser170 of human FBP1

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.

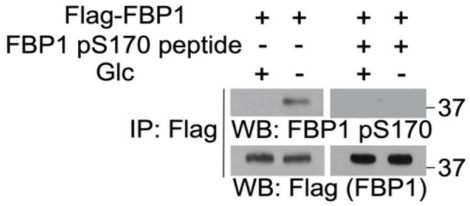
Specificity/Sensitivity: FBP1 （Phospho-Ser170)antibody detects endogenous levels of FBP1 only when phospholated at Serine170 .

Reactivity: Human

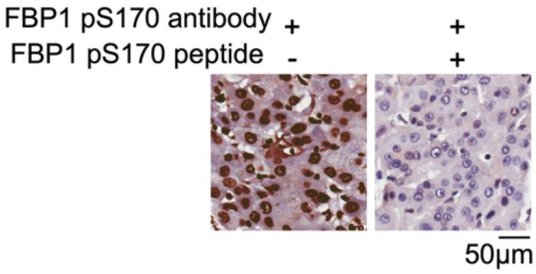
Applications:

Predicted MW: 39KD

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



L 02 cells expressing Flag-FBP1 were treated with or without glucose deprivation for 2 h. Immunoblotting analyses with an anti-FBP1 pS170 antibody were performed in the presence or absence of a peptide that blocked the phosphorylation of S170.



Immunohistochemical analyses of HCC tissue with an anti-FBP1 pS170 antibody were performed in the presence or absence of a peptide that blocked the phosphorylation of S170.

Background :Compared with normal cells, tumour cells possess greater metabolic plasticity, which provides them with a selective advantage for survival and proliferation under harsh microenvironmental conditions, including nutrient stress. Glucose deprivation in normal hepatocytes induced PERK-dependent FBP1 S170 phosphorylation, which converted the FBP1 tetramer to monomers and exposed the NLS for binding to importin α 3 and subsequent FBP1-nuclear translocation. In the nucleus, S170-phosphorylated FBP1 interacted with PPAR α and translocated to the promoter regions of PPAR α -mediated β -oxidation genes, where FBP1 bound to histone H3[1] .

Reference:[1] Wang Z.et al. Fructose-1,6-bisphosphatase 1 functions as a protein phosphatase to dephosphorylate histone H3 and suppresses PPARα-regulated gene transcription and tumour growth. ***Nat Cell Biol.*** 2022 Nov;24(11):1655-1665. doi: 10.1038/s41556-022-01009-4.