



# CKB (Phospho-Thr133 ) Antibody

#58020

**Number:** 58020

**Amount:** 100µg/100µl

**Form of Antibody:** Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), 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 Thr133 of human CKB

**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.

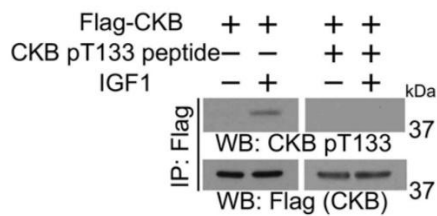
**Specificity/Sensitivity:** CKB (Phospho-Thr133) antibody detects endogenous levels of CKB only when phosphorylated at Threonine133 .

**Reactivity:** Human

**Applications:**

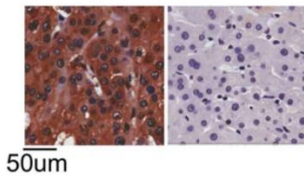
Predicted MW: 37KD

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



Huh7 cells expressing Flag-CKB were treated with or without IGF1 for 1 h. Immunoblotting were performed with the indicated antibodies and a CKB pT133-blocking peptide.

|                    |   |   |
|--------------------|---|---|
| CKB pT133 peptide  | - | + |
| CKB pT133 antibody | + | + |



IHC analyses of human HCC samples were performed with the indicated antibodies and a CKB pT133-blocking peptide. Scale bars, 50 µm.

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**Background** :Creatine kinase B are metabolic enzymes. Oncogenic signalling elicits tumour-specific regulation to eliminate lipid peroxides and counteract ferroptosis by granting a moonlighting function to CKB. AKT activated by insulin-like growth factor 1 receptor signalling phosphorylates creatine kinase B (CKB) T133, reduces metabolic activity of CKB and increases CKB binding to glutathione peroxidase 4. The phosphorylation levels of CKB T133 in human hepatocellular carcinoma specimens and associated with poor prognosis of patients with hepatocellular carcinoma [1] .

**Reference:**[1] Wu K, Yan M, Liu T, Wang Z, Duan Y, Xia Y, Ji G, Shen Y, Wang L, Li L, Zheng P, Dong B, Wu Q, Xiao L, Yang X, Shen H, Wen T, Zhang J, Yi J, Deng Y, Qian X, Ma L, Fang J, Zhou Q, Lu Z, Xu D. Creatine kinase B suppresses ferroptosis by phosphorylating GPX4 through a moonlighting function. *Nat Cell Biol.* 2023 May;25(5):714-725. doi: 10.1038/s41556-023-01133-9.