

# Anti-Creatine kinase B type Antibody [PSH09-32]

## HA723090



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, FC
<b>Molecular Wt:</b>	Predicted band size: 43 kDa
<b>Clone number:</b>	PSH09-32

**Description:** Brain-type creatine kinase also known as CK-BB is a creatine kinase that in humans is encoded by the CKB gene. The protein encoded by this gene, CK-BB, consists of a homodimer of two identical brain-type CK-B subunits. BB-CK is a cytoplasmic enzyme involved in cellular energy homeostasis, with certain fractions of the enzyme being bound to cell membranes, ATPases, and a variety of ATP-requiring enzymes in the cell. There, CK-BB forms tightly coupled microcompartments for in situ regeneration of ATP that has been used up. The encoded protein reversibly catalyzes the transfer of "energy-rich" phosphate between ATP and creatine or between phospho-creatine (PCr) and ADP. Its functional entity is a homodimer (CK-BB) in brain and smooth muscle as well as in other tissues and cells such as neuronal cells, retina, kidney, bone, etc. In heart, a heterodimer (CK-MB) consisting of one CK-B brain-type CK subunit and one CK-M muscle-type CK subunit is prominently expressed. The encoded CK-BB and CK-MB proteins are members of the ATP:guanido phosphotransferase protein family.

**Immunogen:** Recombinant protein within human CKB aa 1-381.

**Positive control:** HeLa cell lysate, SH-SY5Y cell lysate, Y79 cell lysate, C6 cell lysate, Mouse cerebellum tissue lysate, Rat cerebellum tissue lysate, SH-SY5Y.

**Subcellular location:** Cytoplasm, cytosol, Mitochondrion, Cell membrane.

**Database links:** SwissProt: P12277 Human | Q04447 Mouse | P07335 Rat

**Recommended Dilutions:**

<b>WB</b>	1:2,000
<b>IF-Cell</b>	1:2,000
<b>FC</b>	1:200-1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

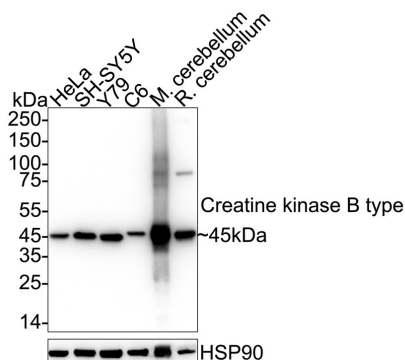
Technical:0086-571-89986345

Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images



**Fig1:** Western blot analysis of Creatine kinase B type on different lysates with Rabbit anti-Creatine kinase B type antibody (HA723090) at 1/2,000 dilution.

Lane 1: HeLa cell lysate  
 Lane 2: SH-SY5Y cell lysate  
 Lane 3: Y79 cell lysate  
 Lane 4: C6 cell lysate  
 Lane 5: Mouse cerebellum tissue lysate  
 Lane 6: Rat cerebellum tissue lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 43 kDa

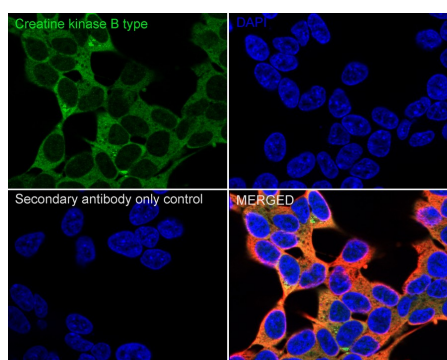
Observed band size: 45 kDa

Exposure time: 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723090) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Immunocytochemistry analysis of SH-SY5Y cells labeling Creatine kinase B type with Rabbit anti-Creatine kinase B type antibody (HA723090) at 1/2,000 dilution.



Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Creatine kinase B type antibody (HA723090) at 1/2,000 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

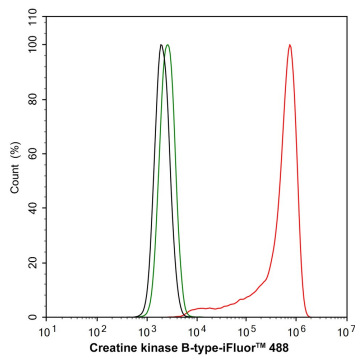
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**Fig3:** Flow cytometric analysis of SH-SY5Y cells labeling Creatine kinase B type.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA723090, 1/200) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/200dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Zhou F et al. CKB affects human osteosarcoma progression by regulating the p53 pathway. Am J Cancer Res. 2022 Oct

2. Zhou FL et al. Effects of plumbagin on proliferation and apoptosis of human hepatocellular carcinoma cells based on CKB/p53 signaling pathway. Zhongguo Zhong Yao Za Zhi. 2024 May

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