

**Product Name:** KD-Validated Creatine Kinase B Type Recombinant Rabbit Monoclonal Antibody

**Catalog #:** KVAb00792

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC,IHC-P                                                            |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 42.6kDa                                                     |

## Antigen Information

|                          |                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | CKB                                                                                                                                                                                                                                                                                                                                        |
| <b>Alternative Names</b> | CKB; Creatine Kinase B; CKBB; Creatine Phosphokinase B-Type; Creatine Kinase Brain-Type; Creatine Kinase B Chain; Creatine Kinase B-Type; Brain Creatine Kinase; EC 2.7.3.2; CPK-B; B-CK; Epididymis Secretory Protein Li; Epididymis Luminal Protein 211; Creatine Kinase, Brain; Creatine Kinase Brain; HEL-S-29; EC 2.7.3; HEL-211; BCK |
| <b>Gene ID</b>           | 1152.0                                                                                                                                                                                                                                                                                                                                     |
| <b>SwissProt ID</b>      | P12277                                                                                                                                                                                                                                                                                                                                     |
| <b>Immunogen</b>         | A synthesized peptide derived from human Creatine kinase B type                                                                                                                                                                                                                                                                            |

## Background

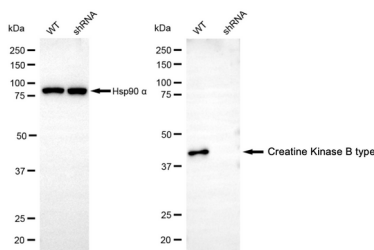
---

The protein encoded by this gene is a cytoplasmic enzyme involved in energy homeostasis. The encoded protein reversibly catalyzes the transfer of phosphate between ATP and various phosphogens such as creatine phosphate. It acts as a homodimer in brain as well as in other tissues, and as a heterodimer with a similar muscle isozyme in heart. The encoded protein is a member of the ATP:guanido phosphotransferase protein family. A pseudogene of this gene has been characterized. [provided by RefSeq, Jul 2008]

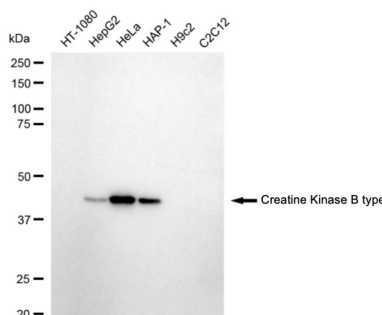
## Research Area

Neuroscience,Signal Transduction,Cancer,Metabolism

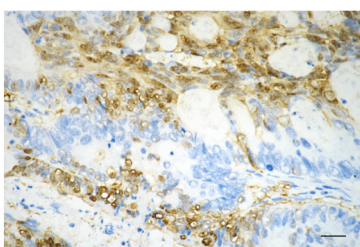
## Image Data



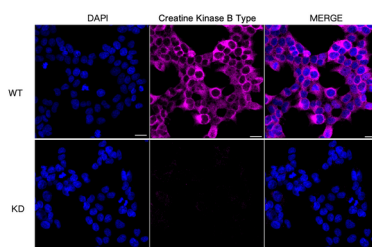
Western blotting analysis using creatine kinase B type antibody (KVA00792). Creatine kinase B type expression in wild-type (WT) and creatine kinase B type (CKB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with creatine kinase B type antibody (KVA00792, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



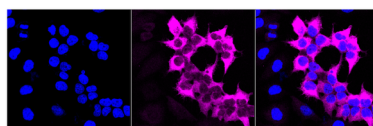
Western blotting analysis using creatine kinase B type antibody (KVA00792). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with creatine kinase B type antibody (KVA00792, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using creatine kinase B type antibody (KVA00792, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.

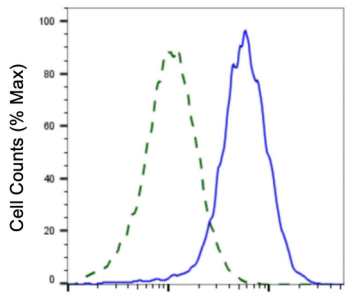


Immunocytochemical staining of HeLa cells using creatine kinase B type antibody (KVA00792, 1:1,000), Top panel: wild-type (WT); Bottom panel: Creatine kinase B type shRNA knockdown (KD). Nuclei were stained blue with DAPI; Creatine kinase B type was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



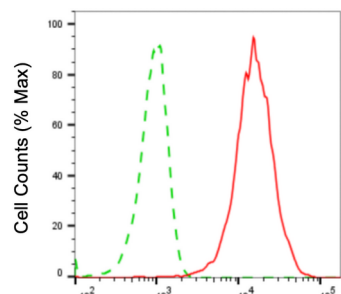
Immunocytochemical staining of HeLa cells with creatine kinase B type antibody (KVA00792, 1:1,000). Nuclei were stained blue with DAPI; Creatine kinase B type was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: High. Scale bar: 20 µm.

µm.



Creatine Kinase B Type-Alexa Fluor® 647

Validation of creatine kinase B type knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with creatine kinase B type antibody (KVA00792, 1:2,000) and analyzed using BD flow cytometer.



Creatine Kinase B Type-Alexa Fluor® 647

Flow cytometric analysis of creatine kinase B type expression in HeLa cells using creatine kinase B type antibody (KVA00792, 1:2,000). Green, isotype control; red, Creatine kinase B type.