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# KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody

**Rabbit monoclonal antibody**
**Catalog # AGI1809**

## Specification

### KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody - Product Information

| | |
|---|---|
| Application | **WB, FC, ICC** |
| Primary Accession | P12277 |
| Reactivity | **Human** |
| Clonality | **Monoclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **Predicted, 43 kDa, observed, 43 kDa KDa** |
| Gene Name | **CKB** |
| Aliases | **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** |
| Immunogen | **A synthesized peptide derived from human Creatine kinase B type** |

### KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody - Additional Information

Gene ID **1152**

**Other Names**
Creatine kinase B-type, 2.7.3.2, Brain creatine kinase, B-CK, Creatine kinase B chain, Creatine phosphokinase B-type, CPK-B, CKB (<a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=1991" target="_blank">HGNC:1991</a>), CKBB

### KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody - Protein Information

**Name** CKB (HGNC:1991)

**Synonyms** CKBB

**Function**
Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate) (PubMed:<a href="http://www.uniprot.org/citations/8186255" target="_blank">8186255</a>). Creatine kinase isoenzymes play a central role in energy transduction in tissues with large, fluctuating energy demands, such as skeletal muscle, heart,

brain and spermatozoa (Probable). Acts as a key regulator of adaptive thermogenesis as part of the futile creatine cycle: localizes to the mitochondria of thermogenic fat cells and acts by mediating phosphorylation of creatine to initiate a futile cycle of creatine phosphorylation and dephosphorylation (By similarity). During the futile creatine cycle, creatine and N-phosphocreatine are in a futile cycle, which dissipates the high energy charge of N- phosphocreatine as heat without performing any mechanical or chemical work (By similarity).

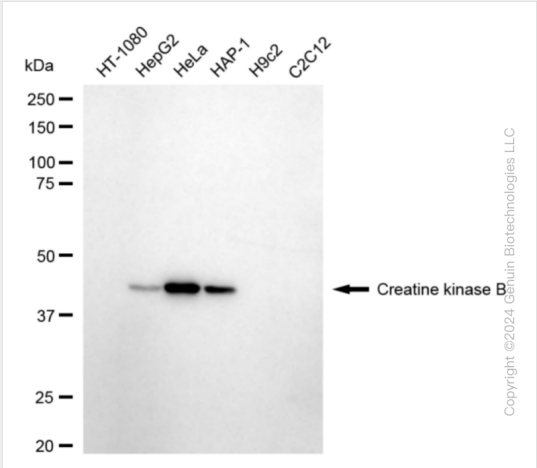
**Cellular Location**
Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q04447}. Mitochondrion {ECO:0000250|UniProtKB:Q04447}. Cell membrane. Note=Localizes to the mitochondria of thermogenic fat cells via the internal MTS-like signal (iMTS-L) region {ECO:0000250|UniProtKB:Q04447}

## KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody - Images




Western blotting analysis using anti-creatine kinase B antibody (Cat#AGI1809). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-creatine kinase B antibody (Cat#AGI1809, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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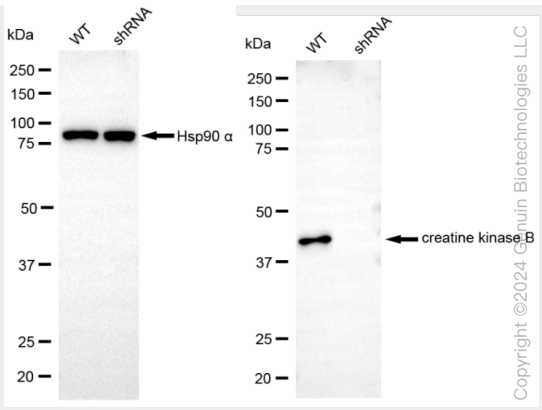
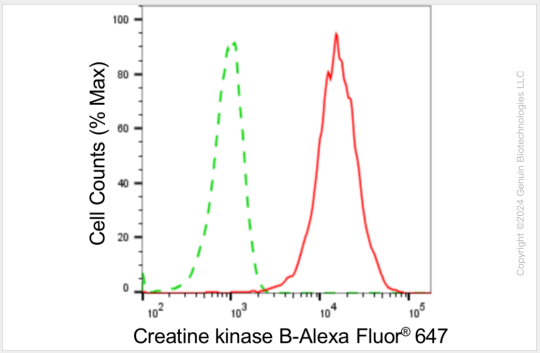
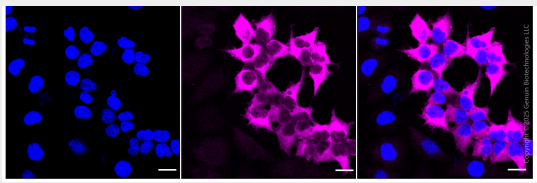



Western blotting analysis using anti-creatine kinase B antibody (Cat#AGI1809). Creatine kinase B expression in wild-type (WT) and creatine kinase B (CKB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-creatine kinase B antibody (Cat#AGI1809, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.




Flow cytometric analysis of Creatine kinase B expression in HeLa cells using anti-Creatine kinase B antibody (Cat#AGI1809, 1:2,000). Green, isotype control; red, Creatine kinase B.



Immunocytochemical staining of Hela cells with creatine kinase B antibody (Cat#AGI1809, 1:1,000). Nuclei were stained blue with DAPI; Creatine kinase B 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.