10320 Camino Santa Fe, Suite G
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KD-Validated Anti-Creatine Kinase B type Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1811

Specification

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

Application	**WB, FC, ICC**
Primary Accession	P12277
Reactivity	**Rat, 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 (HGNC:1991), 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:8186255). 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).

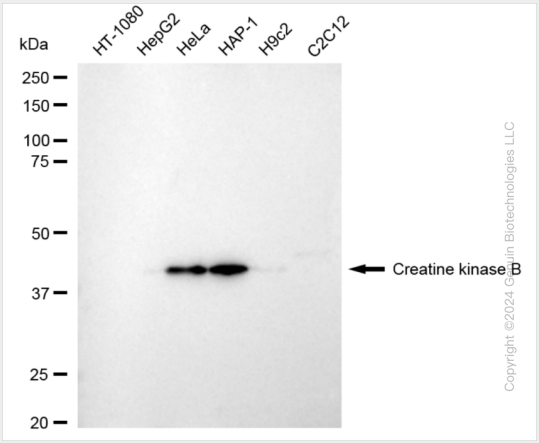
Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q04447}. Mitochondrion {ECO:0000250|UniProtKB:Q04447}. Cell membrane. Note=Localizes to the mitochondria of thermogenic fat cells via the internal MTS-like signal (iMTS-L) region {ECO:0000250|UniProtKB:Q04447}

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#AGI1811). 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#AGI1811, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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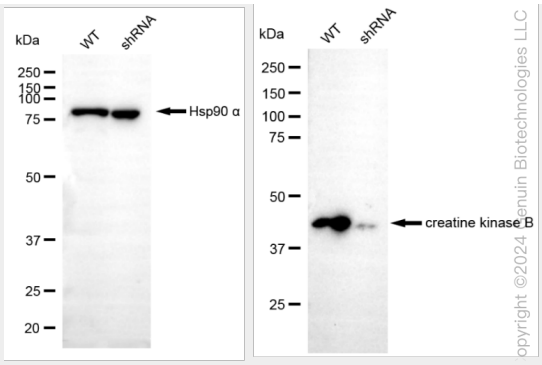
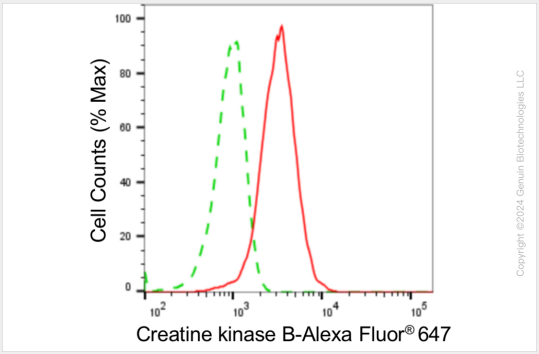
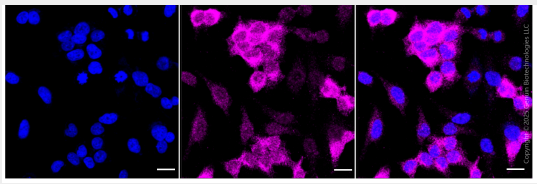


Western blotting analysis using anti-creatine kinase B antibody (Cat#AGI1811). Creatine kinase B expression in wild-type (WT) and creatine kinase B (CKB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-creatine kinase B antibody (Cat#AGI1811, 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#AGI1811, 1:2,000). Green, isotype control; red, Creatine kinase B.



Immunocytochemical staining of Hela cells with creatine kinase B antibody (Cat#AGI1811, 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: Medium. Scale bar: 20 µm.