

KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI1987**Specification****KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P12277
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	Predicted, 43 kDa, observed, 42 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 29; Epididymis Luminal Protein 211; Creatine Kinase, Brain; Creatine Kinase Brain; HEL-S-29; EC 2.7.3; HEL-211; BCK
Immunogen	Recombinant protein of human Creatine Kinase B

KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody - Additional InformationGene 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 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=1991), CKBB

KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody - Protein InformationName CKB ([HGNC:1991](#))

Synonyms CKBB

Function

Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate) (PubMed: <http://www.uniprot.org/citations/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

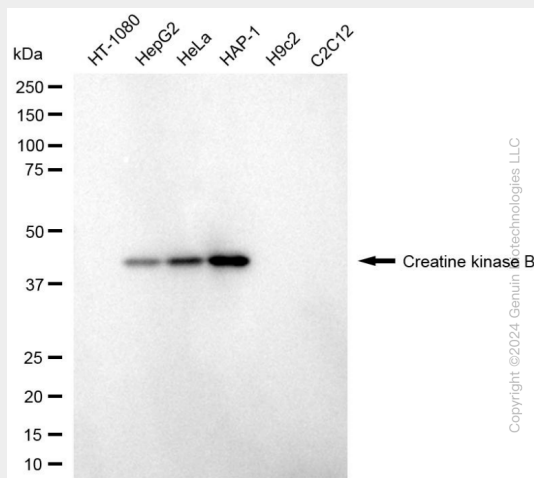
Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q04447}. Mitochondrion {ECO:0000250|UniProtKB:Q04447}. Cell membrane. Note=Localizes to the mitochondria of thermogenic fat cells via the internal MTS-like signal (iMTS-L) region {ECO:0000250|UniProtKB:Q04447}

KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody - Protocols

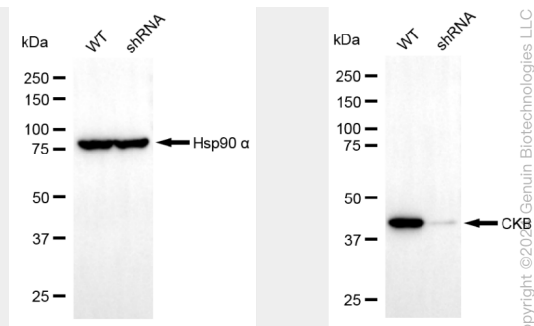
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

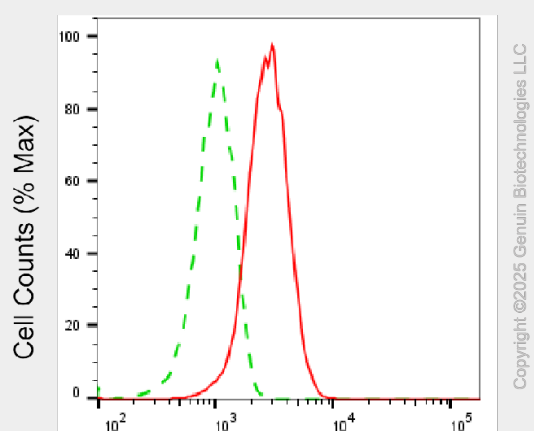
KD-Validated Anti-Creatine Kinase B Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-creatine kinase B antibody (Cat#AGI1987). 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#AGI1987, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.

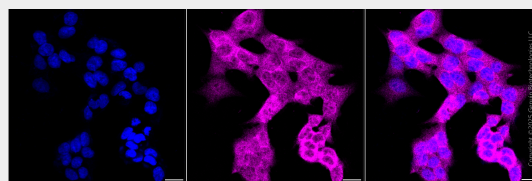


Western blotting analysis using anti-creatine kinase B antibody (Cat#AGI1987). Creatine kinase B expression in wild-type (WT) and creatine kinase B (CKB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-creatine kinase B antibody (Cat#AGI1987, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Creatine kinase B-Alexa Fluor® 647

Flow cytometric analysis of Creatine kinase B expression in HAP-1 cells using anti-Creatine kinase B antibody (Cat#AGI1987, 1:2,000). Green, isotype control; red, Creatine kinase B.



Immunocytochemical staining of HAP1 cells with anti-Creatine kinase B antibody (Cat#AGI1987, 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.