

**Creatine Kinase B Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP7059b****Specification**

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**Creatine Kinase B Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P12277](#)**Creatine Kinase B Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 1152**Other Names**

Creatine kinase B-type, B-CK, Creatine kinase B chain, CKB, CKBB

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7059b](/product/products/AP7059b) was selected from the Center region of human CKB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Creatine Kinase B Antibody (C-term) Blocking peptide - 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: <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}

**Creatine Kinase B Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**Creatine Kinase B Antibody (C-term) Blocking peptide - Images****Creatine Kinase B Antibody (C-term) Blocking peptide - Background**

Creatine Kinase (CK) is a dimeric enzyme composed of either M- or B-type subunits. The resulting isoenzymes are expressed at varying levels in different tissues. CK-BB, a cytoplasmic predominantly found in brain tissues, participates in energy homeostasis, reversibly catalyzing the transfer of a phosphate group between ATP and target proteins such as a creatine phosphate. CK-BB exists in normally negligible amounts in the serum of adults, overexpression of CK-BB is associated with cancers of the breast, ovary, prostate, colon, and in small-cell lung cancer. Global assessment of changes in serum levels of CK-BB, CK-MB and CK-MM, are used as a marker for myocardial infarction.