

CKB Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7059a**Specification**

CKB Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P12277](#)**CKB Antibody (N-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 [AP7059a](/product/products/AP7059a) was selected from the N-term 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.

CKB Antibody (N-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). 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}

CKB Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

CKB Antibody (N-term) Blocking Peptide - Images**CKB Antibody (N-term) Blocking Peptide - Background**

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. The CKB isoform, present in many tissues but especially brain, is a cytoplasmic enzyme involved in energy homeostasis. CKB reversibly catalyzes the transfer of phosphate between ATP and various phosphogens such as creatine phosphate. Creatine kinase B-driven energy transfer in the brain is important for habituation and spatial learning behaviour, mossy fibre field size and determination of seizure susceptibility. The encoded protein is a member of the ATP:guanido phosphotransferase protein family.