

**Goat Anti-CKB / Brain Creatine Kinase Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1245a

**Specification**

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**Goat Anti-CKB / Brain Creatine Kinase Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P12277</a>
Other Accession	<a href="#">NP_001814</a> , <a href="#">1152</a> , <a href="#">12709 (mouse)</a>
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	42644

**Goat Anti-CKB / Brain Creatine Kinase Antibody - Additional Information**

**Gene ID** 1152

**Other Names**

Creatine kinase B-type, 2.7.3.2, B-CK, Creatine kinase B chain, CKB, CKBB

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-CKB / Brain Creatine Kinase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-CKB / Brain Creatine Kinase 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: <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}

### Goat Anti-CKB / Brain Creatine Kinase 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](#)

### Goat Anti-CKB / Brain Creatine Kinase Antibody - Images



AF1245a (0.1 µg/ml) staining of human brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-CKB / Brain Creatine Kinase Antibody - Background

The protein encoded by this gene is a cytoplasmic enzyme involved in energy homeostasis. The encoded protein reversibly catalyzes the transfer of phosphate between ATP and various phosphogens such as creatine phosphate. It acts as a homodimer in brain as well as in other tissues, and as a heterodimer with a similar muscle isozyme in heart. The encoded protein is a member of the ATP:guanido phosphotransferase protein family. A pseudogene of this gene has been characterized.

### **Goat Anti-CKB / Brain Creatine Kinase Antibody - References**

Reduced creatine kinase B activity in multiple sclerosis normal appearing white matter. Steen C, et al. PLoS One, 2010 May 25. PMID 20520825.

Reduced creatine kinase as a central and peripheral biomarker in Huntington's disease. Kim J, et al. Biochim Biophys Acta, 2010 Jul-Aug. PMID 20460152.

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Proteome analysis of schizophrenia patients Wernicke's area reveals an energy metabolism dysregulation. Martins-de-Souza D, et al. BMC Psychiatry, 2009 Apr 30. PMID 19405953.

Prefrontal cortex shotgun proteome analysis reveals altered calcium homeostasis and immune system imbalance in schizophrenia. Martins-de-Souza D, et al. Eur Arch Psychiatry Clin Neurosci, 2009 Apr. PMID 19165527.