

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

Specification

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

Application	WB
Primary Accession	P12277
Other Accession	NP_001814 , 1152 , 12709 (mouse)
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). 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.

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.

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.