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Creatine Phosphokinase-BB (CK-BB) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 2ba6]
Catalog # AH11097

Product Information

Application	IF, FC, IHC-F
Primary Accession	P12277
Other Accession	1152, 173724
Reactivity	Human, Mouse, Rat, Zebrafish, Chicken, Rhesus, Bovine, Chimpanzee, Dog
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	2ba6
Calculated MW	42644

Additional Information

Gene ID	1152
Other Names	Creatine kinase B-type, 2.7.3.2, B-CK, Creatine kinase B chain, CKB, CKBB
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-F~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Creatine Phosphokinase-BB (CK-BB) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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: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}

Background

Creatine kinases (CK) are a large family of isoenzymes that regulate levels of ATP in subcellular compartments, where they provide ATP at sites of fluctuating energy demand by the transfer of phosphates between creatine and adenine nucleotides. CKs provide the energy of phosphate hydrolysis necessary to drive the normal function of many cellular systems. In cells, the cytosolic CK enzymes consist of two subunits, which can be either B (brain type) or M (muscle type). There are three different isoenzymes: CKMM, CKBB and CKMB. This MAb recognizes the CKBB isoenzyme and does not react with the B subunit in CKMB. It shows minimal reactivity with other human serum proteins

References

Mariman, E.C., et al. 1987. Structure and expression of the human creatine kinase B gene. Genomics 1: 126-137. | Mariman, E.C., et al. 1989. Complete nucleotide sequence of the human creatine kinase B gene. Nucleic Acids Res. 17: 6385

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.