

Anti- Human CKMM (Creatine Kinase, MM isoform) Antibody (Goat Polyclonal) Affinity Pure

Catalog Number:	0999-A1-CKMM
Product Specification:	Anti- Human CKMM (Creatine Kinase, MM isoform) Antibody (Goat Polyclonal) Affinity Pure
Size:	250 ug
Type:	Goat Polyclonal, Affinity Purified using human recombinant Creatine Kinase, MM isoform coupled to agarose.
Specificity:	Antibody recognizes recombinant human CKMM (0999-W-CKMM) as a ~20 kDa band on western blot.
Host Species:	Goat
Species Cross-Reactivity:	Not known
Immunogen	human recombinant Creatine Kinase, MM isoform
Isotype:	IgG
Western Blot:	1-4 ug/ml (suggested)
Storage:	-20°C in aliquots. Freeze-thaw cycles must be avoided once the stock aliquot is diluted.
Form:	PBS (0.01 M Sodium phosphate, 0.85% (W/V) NaCl, pH 7.2) with 0.05% Sodium Azide as preservative.
Secondary Antibody (Recommended):	Use anti-Goat IgG raised in donkey (cat # 1010-DG-HR), mouse or rabbit.

Product Background:

Creatine kinase, often abbreviated CK and previously known as creatine phosphokinase or CPK, is a member of the ATP:guanido phosphotransferase protein family. The enzyme reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate)



The creatine kinase isozymes are involved in maintaining intracellular ATP levels, particularly in tissues with large, fluctuating energy demands, such as skeletal muscle, heart, brain, and spermatozoa. Creatine kinase exists as a dimer of identical or non-identical chains. The muscle enzyme (MM) consists of 2 identical M subunits and is the major form in skeletal muscle, striated muscle and myocardium. The BB isoform consists of 2 identical B subunits and is found mainly in brain but also in other tissues like smooth muscle and nerve. Some tissues show a third, hybrid MB isoenzyme.

CKMM (EC 2.7.3.2) is a cytosolic creatine kinase isoform composed of two M chains and is an important serum marker for myocardial infarction. It acts as a homodimer in striated muscle as well as in other tissues, and as a heterodimer with a similar brain isozyme in heart. CKMM interacts in an isoform-specific manner with the M-band of sarcomeric muscle, where it serves as an efficient intramyofibrillar ATP-regenerating system for the actin-activated myosin ATPase located nearby on both sides of the M-band. The M chain (MW = 43 kDa, SDS-PAGE) is 381 amino acids long in mouse, rat and human and encoded by CKM gene. The CKM gene has been mapped on chromosomes 7 (mouse), 1 (rat) and 19 (human).

References: (1) Li, H (2000) PNAS 97, 3467; Hamburg R (1990) JBC 265(11):6403; Benfield, PA (1984) JBC, 259, 14979.

Related Products:

0999-W-CKMM	Creatine Kinase, MM isoenzyme: Protein (WB +ve Control)
1010-DG-HR	Donkey Anti-Goat IgG-HRP (Secondary Antibody)

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