

Immunotag™ sMtCK Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM1097
Product Description	Immunotag™ sMtCK Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	sMtCK
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB
Recommended Dilution	Western Blot: 1/1000 - 1/2000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat,Dog,Pig,Rabbit
Host Species	Mouse
Immunogen	Purified recombinant human sMtCK protein fragments expressed in Ecoli
Specificity	sMtCK Monoclonal Antibody detects endogenous levels of sMtCK protein.
Purification	Affinity purification
Form	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Gene Name	CKMT2
Accession No.	P17540 Q6P8J7 P09605
Alternate Names	CKMT2; Creatine kinase S-type; mitochondrial; Basic-type mitochondrial creatine kinase; Mib-CK; Sarcomeric mitochondrial creatine kinase; S-MtCK

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Description	<p>creatine kinase, mitochondrial 2(CKMT2) Homo sapiens Mitochondrial creatine kinase (MtCK) is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Sarcomeric mitochondrial creatine kinase has 80% homology with the coding exons of ubiquitous mitochondrial creatine kinase. This gene contains sequences homologous to several motifs that are shared among some nuclear genes encoding mitochondrial proteins and thus may be essential for the coordinated activation of these genes during mitochondrial biogenesis. Three transcript variants encoding the same protein have been found for this gen</p>
Cell Pathway/ Category	Arginine and proline metabolism,
Protein Expression	Brain,Heart,
Subcellular Localization	mitochondrion,mitochondrial inner membrane,
Protein Function	<p>catalytic activity:ATP + creatine = ADP + phosphocreatine.,function:Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate). 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.,miscellaneous:Mitochondrial creatine kinase binds cardiolipin.,similarity:Belongs to the ATP:guanido phosphotransferase family.,subunit:Exists as an octamer composed of four CKMT2 homodimers.,tissue specificity:Sarcomere-specific. Found only in heart and skeletal muscles.,</p>
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.