

Mouse Anti-Canine Sarcomeric Mitochondrial Creatine Kinase (sMtCK) Monoclonal Antibody

Cat. No.: VD8N149

Product Type: Animal-targeted Antibodies

Size: 50uL; 100uL

Product Overview

BioVenic mouse monoclonal antibody is specific for canine sarcomeric mitochondrial creatine kinase. It can be applied to WB assay of canine sarcomeric mitochondrial creatine kinase.

Specifications

Application	WB
Clonality	Monoclonal
Classification	Primary Antibody
Clone	G4N12
Host	Mouse
Target Species	Canine
Species Reactivity	Canine
Specificity	Canine Sarcomeric Mitochondrial Creatine Kinase
Isotype	IgG
Immunogen	Purified recombinant canine sarcomeric mitochondrial creatine kinase protein fragments
Concentration	1 mg/mL
Conjugation	Unconjugated
Physical State	Liquid

Target Information

Sarcomeric mitochondrial creatine kinase (sMtCK), also known as mitsCAMK, is an isoform of the creatine kinase enzyme that is specifically localized to the mitochondria of skeletal muscle cells. This unique enzyme plays a critical role in energy metabolism by catalyzing the phosphotransferase reaction, which helps maintain the ATP/ADP ratio necessary for muscle contraction and relaxation. sMtCK is particularly important in situations requiring rapid and high-energy phosphate supply, such as during intense muscle activity.

tivity. It functions to replenish ATP levels by transferring a phosphate group from phosphocreatine to ADP, thus regenerating ATP from ADP in the mitochondrial matrix.

Target	Canine Sarcomeric Mitochondrial Creatine Kinase
Target Synonym	CKMT2
Gene ID	479163
UniProt ID	A0A8P0SDR6

Shipping and Storage

This product is shipped with ice gel packs. Store at -20°C (up to 12 months) on receipt. Avoid repeated freezing and thawing as this may denature the antibody.

Reference

Khuchua, Zaza A., *et al.* "Octamer formation and coupling of cardiac sarcomeric mitochondrial creatine kinase are mediated by charged N-terminal residues." *Journal of Biological Chemistry* 273.36 (1998): 22990-22996.

The product is for research use only. Not for commercial, prophylactic, diagnostic, or therapeutic applications. Please determine the purpose of the product before purchasing. For further information and inquiry, please contact us.