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Rabbit Anti-MCU/Cy5.5 Conjugated antibody

SL20189R-Cy5.5

Product Name	Anti-MCU/Cy5.5
Chinese Name	Cy5.5 标记的 Mitochondrion 钙离子单向 TransporterMCU 抗体
Alias	MCU_HUMAN; C10orf42; Ccdc109a; Coiled-coil domain-containing protein 109A; Mitochondrial Calcium Uniporter.
Research Area	Cardiovascular Cell biology Transporter
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Applications	ICC/IF=1:50-200,IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	40kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human MCU
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** This gene encodes a calcium transporter that localizes to the mitochondrial inner membrane. The encoded protein interacts with mitochondrial calcium uptake 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2012] **Function:** Mitochondrial inner membrane calcium uniporter that mediates calcium

uptake into mitochondria. Mitochondrial calcium homeostasis plays key roles in cellular physiology and regulates cell bioenergetics, cytoplasmic calcium signals and activation of cell death pathways. Activity is regulated by MICU1 and MICU2 that stimulate and inhibit MCU activity, respectively. Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake. Involved in buffering the amplitude of systolic calcium rises in cardiomyocytes.

Subunit:
Component of the uniplex complex, composed of MCU, MCUB, MICU1, MICU2 and EMRE/SMDT1. Heterotetramer with CCDC109B/MCUB; this inhibits channel activity. Homotetramer. Interacts with MICU1; MICU1 acts as an essential regulator for MCU. Interacts with MCUR1; interaction with MICU1 and MCUR1 are mutually exclusive.

Subcellular Location:
Membrane.

Similarity:
Belongs to the CCDC109 family.

Database links:

Entrez Gene: 90550 Human

Entrez Gene: 215999 Mouse

Entrez Gene: 294560 Rat

Omim: 614197 Human

SwissProt: Q8NE86 Human

SwissProt: Q3UMR5 Mouse

Unigene: 591366 Human

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.