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Product datasheet for TA388536

MCU Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant Human Calcium uniporter protein, mitochondrial protein (155-233AA)
Formulation:	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
Concentration:	lot specific
Purification:	>95%, Protein G purified
Conjugation:	Unconjugated
Storage:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Stability:	1 year from dispatch.
Database Link:	Q8NE86

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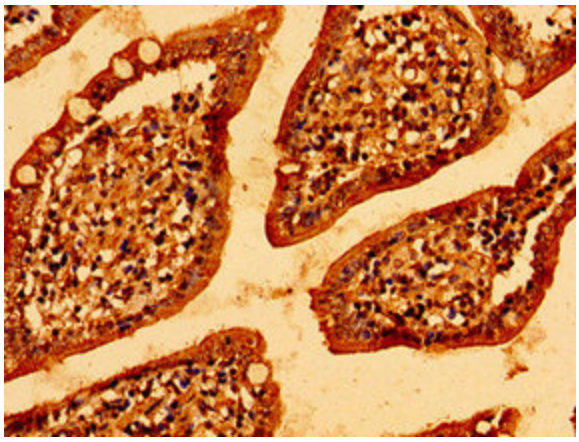
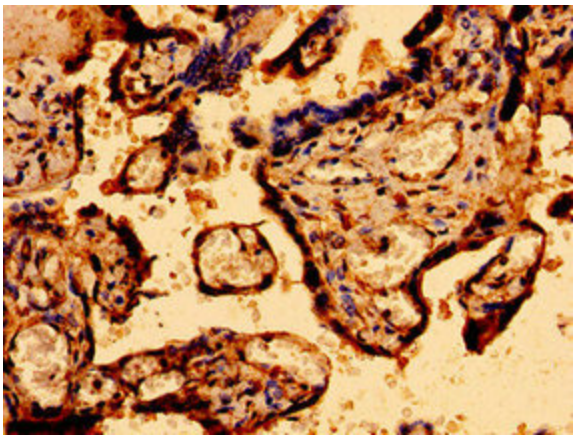
Background: Mitochondrial inner membrane calcium uniporter that mediates calcium uptake into mitochondria (PubMed:21685888, PubMed:21685886, PubMed:23101630, PubMed:22904319, PubMed:23178883, PubMed:22829870, PubMed:22822213, PubMed:24332854, PubMed:23755363, PubMed:26341627). Constitutes the pore-forming and calcium-conducting subunit of the uniporter complex (uniplex) (PubMed:23755363). Activity is regulated by MICU1 and MICU2. At low Ca(2+) levels MCU activity is down-regulated by MICU1 and MICU2; at higher Ca(2+) levels MICU1 increases MCU activity (PubMed:24560927, PubMed:26903221). Mitochondrial calcium homeostasis plays key roles in cellular physiology and regulates cell bioenergetics, cytoplasmic calcium signals and activation of cell death pathways. Involved in buffering the amplitude of systolic calcium rises in cardiomyocytes (PubMed:22822213). While dispensable for baseline homeostatic cardiac function, acts as a key regulator of short-term mitochondrial calcium loading underlying a 'fight-or-flight' response during acute stress: acts by mediating a rapid increase of mitochondrial calcium in pacemaker cells (PubMed:25603276). participates in mitochondrial permeability transition during ischemia-reperfusion injury (By similarity). Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake (PubMed:22904319, PubMed:22829870). Mitochondrial calcium uptake in skeletal muscle cells is involved in muscle size in adults (By similarity). Regulates synaptic vesicle endocytosis kinetics in central nerve terminal (By similarity). Involved in antigen processing and presentation (By similarity).

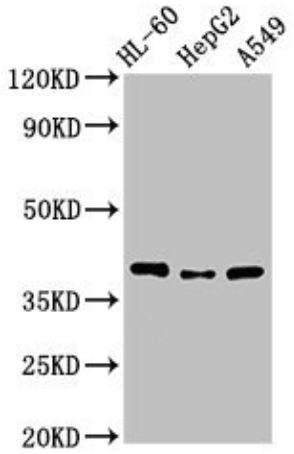
Product images:



Immunohistochemistry of paraffin-embedded human small intestine tissue using TA388536 at dilution of 1:100



Immunohistochemistry of paraffin-embedded human placenta tissue using TA388536 at dilution of 1:100



Western Blot
Positive WB detected in: HL60 whole cell lysate, HepG2 whole cell lysate, A549 whole cell lysate
All lanes: MCU antibody at 3.4µg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 40, 37, 36 kDa
Observed band size: 40 kDa