

MCU polyclonal antibody

Catalog: BS90834

Host: Rabbit

Reactivity: Human, Mouse, Rat

Background:

Mitochondrial inner membrane calcium uniporter that mediates calcium uptake into mitochondria. Constitutes the pore-forming and calcium-conducting subunit of the uniporter complex. 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. 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. 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.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

Predicted band size 40 kDa

Swiss-Prot:

Q8NE86(Human) Q3UMR5(Mouse)

Purification&Purity:

Protein affinity purified.

Applications:

WB:1:500-1:1,000

ICC:1:50-1:200

IHC:1:50-1:200

FC:1:50-1:100

Storage&Stability:

Store at +4 °C after thawing. Aliquot store at -20 °C. Avoid repeated freeze / thaw cycles.

Specificity:

MCU polyclonal antibody detects endogenous levels of MCU protein.

DATA:

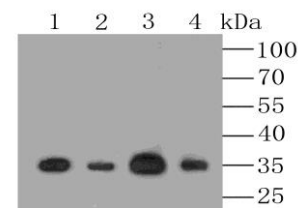


Fig1:Western blot analysis of MCU on different lysates using anti-MCU antibody at 1/500 dilution.

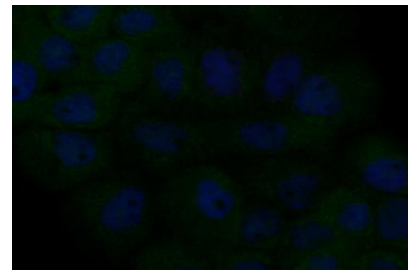
Positive control:

Lane1: A549

Lane3: mouse spleen tissue

Lane2: HL-60

Lane4: mouse brain tissue



ICC staining MCU in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

Note:

For research use only, not for use in diagnostic procedure.

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