Datasheet for ABIN7146322

# anti-MICU1 antibody (AA 55-191)

2 Images

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## Overview

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|---|---|
| Quantity: | 100 µg |
| Target: | MICU1 |
| Binding Specificity: | AA 55-191 |
| Reactivity: | Human |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This MICU1 antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC) |

## Product Details

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|---|---|
| Immunogen: | Recombinant Human Calcium uptake protein 1, mitochondrial protein (55-191AA) |
| Isotype: | IgG |
| Cross-Reactivity: | Human |
| Purification: | >95%, Protein G purified |

## Target Details

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|---|---|
| Target: | MICU1 |
| Alternative Name: | MICU1 (MICU1 Products) |
| Background: | Background: Key regulator of mitochondrial calcium uniporter (MCU) that senses calcium level via its EF-hand domains (PubMed:20693986, PubMed:23101630, PubMed:23747253, |

## Target Details

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|---|---|
| | PubMed:24313810, PubMed:24332854, PubMed:24503055, PubMed:24560927, PubMed:26341627, PubMed:26903221, PubMed:27099988). MICU1 and MICU2 form a disulfide-linked heterodimer that stimulates and inhibits MCU activity, depending on the concentration of calcium. MICU1 acts both as an activator or inhibitor of mitochondrial calcium uptake (PubMed:26903221). Acts as a gatekeeper of MCU at low concentration of calcium, preventing channel opening (PubMed:26903221). Enhances MCU opening at high calcium concentration, allowing a rapid response of mitochondria to calcium signals generated in the cytoplasm (PubMed:24560927, PubMed:26903221). Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake (PubMed:22904319). Induces T-helper 1-mediated autoreactivity, which is accompanied by the release of IFNG (PubMed:16002733).<br>Aliases: Allergen Hom s 4 antibody, ara CALC antibody, atopy related autoantigen antibody, atopy related autoantigen CALC antibody, Atopy-related autoantigen CALC antibody, CALC antibody, calcium binding atopy related autoantigen 1 antibody, Calcium uptake protein 1 antibody, calcium uptake protein 1, mitochondrial antibody, Calcium-binding atopy-related autoantigen 1 antibody, CBARA1 antibody, EFHA3 antibody, FLJ12684 antibody, MICU1 antibody, MICU1_HUMAN antibody, mitochondrial antibody, mitochondrial calcium uptake 1 antibody, MPXPS antibody |
| UniProt: | Q9BPX6 |

## Application Details

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|---|---|
| Application Notes: | Recommended dilution: WB:1:500-1:5000, IHC:1:200-1:500, |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | Preservative: 0.03 % Proclin 300<br>Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4 |
| Preservative: | ProClin |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C,-80 °C |

## Handling

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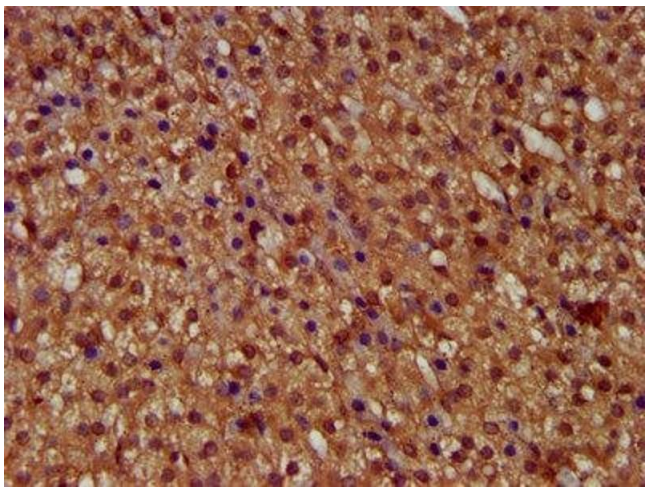
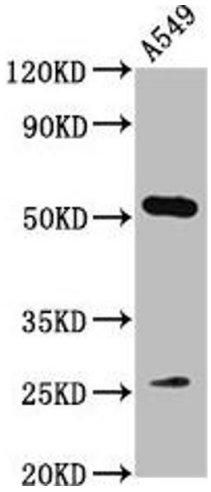
|---|---|
| Storage Comment: | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |

## Images



### Immunohistochemistry

**Image 1.** IHC image of ABIN7146322 diluted at 1:400 and staining in paraffin-embedded human adrenal gland tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.




### Western Blotting

**Image 2.** Western Blot Positive WB detected in: A549 whole cell lysate All lanes: MICU1 antibody at 3.2 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 55, 46, 33, 32 kDa Observed band size: 55 kDa