

MCUR1 Antibody



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New 02/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 23 kDa	Source Rabbit**
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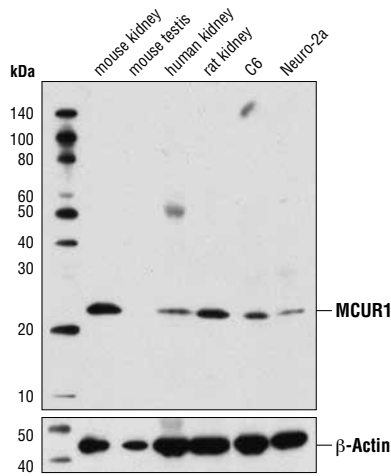
Background: Mitochondrial Calcium Uniporter Regulator 1 (MCUR1) is a mitochondrial inner membrane protein involved in the uptake of calcium. This multi-pass protein contains two transmembrane domains with both amino- and carboxy-termini projecting into the same mitochondrial intermembrane space (1). Research studies indicate that reduction in MCUR1 activity results in decreased mitochondrial Ca²⁺ uptake, while overexpression of MCUR1 results in increased mitochondrial calcium levels (1). MCUR1 protein directly interacts with mitochondrial calcium uniporter (MCU) and plays an essential role in the regulation of calcium uptake and maintenance of mitochondrial calcium homeostasis (1). Regulation of MCU by MCUR1 may be critical for a variety of cellular functions, including signal transduction, bioenergetics, and cell death and survival (2).

Specificity/Sensitivity: MCUR1 Antibody recognizes endogenous levels of total MCUR1 protein.

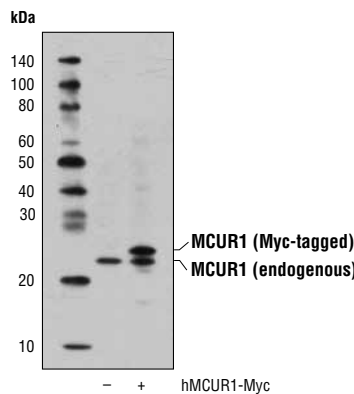
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala305 of human MCUR1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

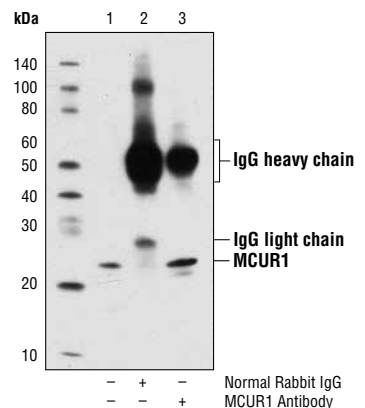
- (1) Marchi, S. and Pinton, P. (2014) *J Physiol*, [Epub ahead of print].
- (2) Mallilankaraman, K. et al. (2012) *Nat Cell Biol* 14, 1336-43.



Western blot analysis of extracts from various tissues and cell lines using MCUR1 Antibody (upper) and β -Actin (D6A8) Rabbit mAb #8457 (lower).



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing Myc-tagged full-length human MCUR1 protein (hMycUR1-Myc; +), using MCUR1 Antibody.



Immunoprecipitation of MCUR1 from 293 cell extracts using Normal Rabbit IgG #2729 (lane 2) or MCUR1 Antibody (lane 3). Lane 1 is 10% input. Western blot analysis was performed using MCUR1 Antibody.

Entrez Gene ID #63933
UniProt ID #Q96AQ8

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunoprecipitation 1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com/companion for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.