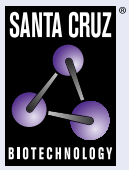
SANTA CRUZ BIOTECHNOLOGY, INC.

OCTL1 (B-5): sc-390931



The Power to Question

BACKGROUND

Organic cations, such as quaternary ammoniums, are a group of compounds that carry a positive charge. OCTL1 (organic cation transporter-like 3), also known as SLC22A13, OCTL3 or ORCTL3, belongs to the major facilitator superfamily which includes the organic cation transport family. OCTL1 is a conserved 551 amino acid transmembrane protein that has a fundamental role in mammalian systems. OCTL1 functions in the uptake of catecholamines and neurotoxic organic cations. Organic cation transport is essential for drug absorption, targeting and deposition. OCTL1 is highly expressed in glial cells and kidney tissue, and is ubiquitously expressed at low levels in all other tissues.

REFERENCES

1. Ikegawa, S., et al. 1999. Cloning and characterization of a novel gene (C8orf2), a human representative of a novel gene family with homology to *C. elegans* C42.C1.9. Cytogenet. Cell Genet. 85: 227-231.
2. Wieland, A., et al. 2000. Analysis of the gene structure of the human (SLC22A3) and murine (Slc22a3) extraneuronal monoamine transporter. J. Neural Transm. 107: 1149-1157.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604047. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SLC22A13 (human) mapping to 3p22.2; Slc22a13 (mouse) mapping to 9 F3.

SOURCE

OCTL1 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 307-328 within a cytoplasmic domain of OCTL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OCTL1 (B-5) is available conjugated to agarose (sc-390931 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390931 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390931 PE), fluorescein (sc-390931 FITC), Alexa Fluor® 488 (sc-390931 AF488), Alexa Fluor® 546 (sc-390931 AF546), Alexa Fluor® 594 (sc-390931 AF594) or Alexa Fluor® 647 (sc-390931 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390931 AF680) or Alexa Fluor® 790 (sc-390931 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390931 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

OCTL1 (B-5) is recommended for detection of OCTL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

OCTL1 (B-5) is also recommended for detection of OCTL1 in additional species, including canine.

Suitable for use as control antibody for OCTL1 siRNA (h): sc-78381, OCTL1 siRNA (m): sc-150173, OCTL1 shRNA Plasmid (h): sc-78381-SH, OCTL1 shRNA Plasmid (m): sc-150173-SH, OCTL1 shRNA (h) Lentiviral Particles: sc-78381-V and OCTL1 shRNA (m) Lentiviral Particles: sc-150173-V.

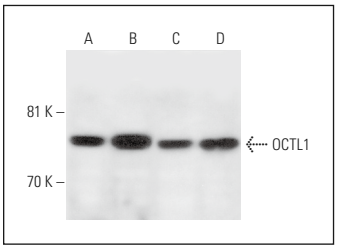
Molecular Weight of OCTL1: 61 kDa.

Positive Cpntrols: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

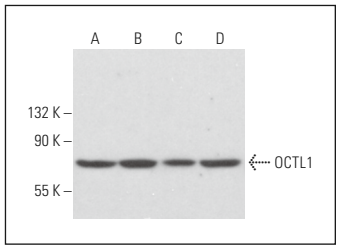
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



OCTL1 (B-5): sc-390931. Western blot analysis of OCTL1 expression in A-431 (**A**), HeLa (**B**), C6 (**C**) and Hep G2 (**D**) whole cell lysates.



OCTL1 (B-5): sc-390931. Western blot analysis of OCTL1 expression in A-431 (**A**), Caki-1 (**B**), RT-4 (**C**) and RAW 264.7 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Berghaus, C., et al. 2022. Impact of Pals1 on expression and localization of transporters belonging to the solute carrier family. Front. Mol. Biosci. 9: 792829.

RESEARCH USE

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

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