

OCTL1 (A-5): sc-398622

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

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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/>
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
5. Haag, C., et al. 2004. The localisation of the extraneuronal monoamine transporter (EMT) in rat brain. *J. Neurochem.* 88: 291-297.
6. Yamada, H., et al. 2005. Effect of splice-site polymorphisms of the TMPRSS4, NPHP4 and ORCTL4 genes on their mRNA expression. *J. Genet.* 84: 131-136.
7. Bahn, A., et al. 2008. Identification of a new urate and high affinity nicotinate transporter, hOAT10 (SLC22A13). *J. Biol. Chem.* 283: 16332-16341.

CHROMOSOMAL LOCATION

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

SOURCE

OCTL1 (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 69-94 within an extracellular domain of OCTL1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-398622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

OCTL1 (A-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).

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.

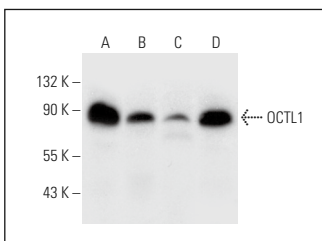
Molecular Weight of OCTL1: 61 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, C6 whole cell lysate: sc-364373 or KNRK whole cell lysate: sc-2214.

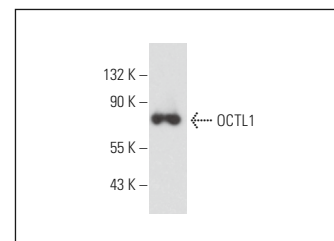
RECOMMENDED SUPPORT REAGENTS

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 (A-5): sc-398622. Western blot analysis of OCTL1 expression in HeLa (A), C6 (B), Hep G2 (C) and KNRK (D) whole cell lysates.



OCTL1 (A-5): sc-398622. Western blot analysis of OCTL1 expression in Caki-1 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.