SANTA CRUZ BIOTECHNOLOGY, INC.

OCRL (N-16): sc-12087

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The inositol polyphosphate 5-phosphatases selectively remove the phosphate from the 5-position of various phosphatidylinositols, which generate second messengers in response to extracellular signals. OCRL1 is a type II 5-phosphatase that is mutated in the oculocerebrorenal syndrome of Lowe (OCRL). OCRL is a rare X-linked disorder that is characterized in part by congenital cataracts, mental retardation, muscular hypotonia and renal tubular dysfunction. OCRL1 has a high affinity for phosphatidylinositol 4,5-bisphosphate as well as inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate as substrates. OCRL1 is localized to the Golgi complex and is thought to be part of the *trans*-Golgi network (TGN), which suggests that OCRL1 plays a role in protein sorting and trafficking within the cell.

REFERENCES

1. Zhang, X., et al. 1995. The protein deficient in Lowe syndrome is a phosphatidylinositol-4,5-bisphosphate 5-phosphatase. Proc. Natl. Acad. Sci. USA 92: 4853-4856.
2. Mitchell, C.A., et al. 1996. Regulation of second messengers by the inositol polyphosphate 5-phosphatases. Biochem. Soc. Trans. 24: 994-1000.

CHROMOSOMAL LOCATION

Genetic locus: OCRL (human) mapping to Xq25; Ocrl (mouse) mapping to X A4.

SOURCE

OCRL (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of OCRL of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12087 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OCRL (N-16) is recommended for detection of OCRL of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for OCRL siRNA (h): sc-39073, OCRL siRNA (m): sc-39074, OCRL shRNA Plasmid (h): sc-39073-SH, OCRL shRNA Plasmid (m): sc-39074-SH, OCRL shRNA (h) Lentiviral Particles: sc-39073-V and OCRL shRNA (m) Lentiviral Particles: sc-39074-V.

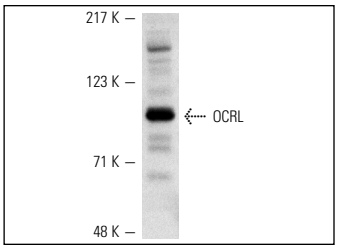
Molecular Weight of OCRL: 105 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, IMR-32 cell lysate: sc-2409 or KNRK whole cell lysate: sc-2214.

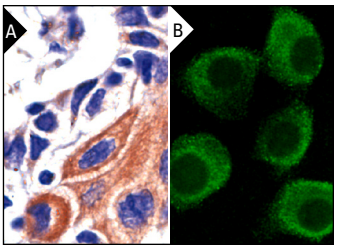
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



OCRL (N-16): sc-12087. Western blot analysis of OCRL expression in KNRK whole cell lysate.



OCRL (N-16): sc-12087. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor (**A**) and immunofluorescence staining of methanol-fixed KNRK cells (**B**) showing cytoplasmic staining.

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 or our catalog for detailed protocols and support products.