

# OCRL (A-17): sc-12090

## 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

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- Roschinger, W., et al. 2000. Carrier assessment in families with Lowe oculocerebrorenal syndrome: novel mutations in the OCRL1 gene and correlation of direct DNA diagnosis with ocular examination. *Mol. Genet. Metab.* 69: 213-222.
- Dressman, M.A., et al. 2000. OCRL1, a PtdIns (4,5)P(2) 5-phosphatase, is localized to the *trans*-Golgi network of fibroblasts and epithelial cells. *J. Histochem. Cytochem.* 48: 179-190.

## CHROMOSOMAL LOCATION

Genetic locus: OCRL (human) mapping to Xq25.

## SOURCE

OCRL (A-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-12090 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

OCRL (A-17) is recommended for detection of OCRL and OCRL-1 isoforms  $\alpha$  and  $\beta$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

OCRL (A-17) is also recommended for detection of OCRL and OCRL-1 isoforms  $\alpha$  and  $\beta$  in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight of OCRL: 105 kDa.

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

## 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) 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **OCRL (C-2): sc-393577**, our highly recommended monoclonal alternative to OCRL (A-17).