OCRL, Oculocerebrorenal syndrome of Lowe polyclonal antibody

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Box 1 | Basic Info

Cat. No.	ABP-PAB-10923
Animal ID	RB0319-0320
Host	Rabbit
Reactivity	Human
Format	Purified
Accession number	NM_000276
Amount	100µg

Alternative Name(s):

phosphatidylinositol polyphosphate 5-phosphatase,LOCR, OCRL1, INPP5F, Lowe syndrome protein

Oculocerebrorenal syndrome of Lowe (OCRL) protein is a phospatidylinositol polyphosphate 5-phosphatase that is found in golgi cisternae. OCRL is 51% identical to inositol polyphosphate 5-phosphatase II from human platelets over a span of 744 amino acids and converts phosphatidylinositol 4,5-bisphosphate to phosphatidylinositol 4-phosphate. OCRL is mainly a lipid phosphatase that may control cellular levels of a critical metabolite, phosphatidylinositol 4,5-bisphosphate. Deficiency of this enzyme apparently causes the protean manifestations of Lowe oculocerebrorenal syndrome which is characterized by hydrophthalmia, cataract, mental retardation, vitamin D-resistant rickets, aminoaciduria, and reduced ammonia production by the kidney.

Buffers

Purified rabbit polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column and eluted out with both high and low pH buffers and neutralized immediately after elution then followed by dialysis against PBS.

Immunogen

KLH conjugated synthetic peptide comprised of amino acids 40 - 56 [CELIIQLHEKEQHVQDI] of the human oculocerebrorenal syndrome of Lowe (OCRL) protein.

Application

Tested by peptide-specific ELISA (1:1,000).

Storage

Maintain refrigerated at 2-8ºC for up to 6 months. For long term storage store at -20ºC. Avoid repeated freeze-thaw cycles.

References:

1. Suchy SF, Nussbaum RL: The deficiency of PIP2 5-phosphatase in Lowe syndrome affects actin polymerization.Am. J. Hum. Genet. 71(6): 1420-1427 (2002).

2. Erneux C, Govaerts C, Communi D, Pesesse X: The diversity and possible functions of the inositol polyphosphate 5-phosphatases. Biochim. Biophys. Acta 1436(1-2): 185-199 (1998).

3. Janne PA, Suchy SF, Bernard D, MacDonald M, Crawley J, Grinberg A, Wynshaw-Boris A, Westphal H, Nussbaum RL: Functional overlap between murine Inpp5b and Ocrl1 may explain why deficiency of the murine ortholog for OCRL1 does not cause Lowe syndrome in mice. J. Clin. Invest. 101(10): 2042-2053 (1998).

4. Zhang X, Jefferson AB, Auethavekiat V, Majerus PW: The protein deficient in Lowe syndrome is a phosphatidylinositol-4,5-bisphosphate 5-phosphatase.Proc. Natl. Acad. Sci. U S A. 92(11):4853-4856 (1995).

5. Attree O, Olivos IM, Okabe I, Bailey LC, Nelson DL, Lewis RA, McInnes RR, Nussbaum RL: The Lowe's oculocerebrorenal syndrome gene encodes a protein highly homologous to inositol polyphosphate-5-phosphatase.Nature 358(6383): 239-242 (1992).