

Product Name: OCRL Rabbit Polyclonal Antibody
Catalog #: APRab15095



Summary

Production Name	OCRL Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	OCRL
Alternative Names	OCRL; INPP5F; OCRL1; Inositol polyphosphate 5-phosphatase OCRL-1; Lowe oculocerebrorenal syndrome protein
Gene ID	4952.0
SwissProt ID	Q01968.The antiserum was produced against synthesized peptide derived from human OCRL. AA range:150-199

Application

Dilution Ratio	WB 1:500-1:2000, ELISA 1:10000.Not yet tested in other applications.
Molecular Weight	104kDa

Background

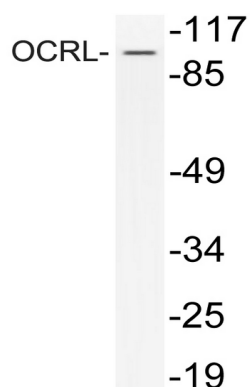
This gene encodes an inositol polyphosphate 5-phosphatase. This protein is involved in regulating membrane trafficking and is located in numerous subcellular locations including the trans-Golgi network, clathrin-coated vesicles and, endosomes and the plasma membrane. This protein may also play a role in primary cilium formation. Mutations in this gene cause oculocerebrorenal syndrome of Lowe and also Dent disease. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016], catalytic activity: 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate + H₂O = 1-phosphatidyl-1D-myo-inositol 4-phosphate + phosphate., caution: It is uncertain whether Met-1, Met-18 or Met-20 is the initiator., disease: Defects in OCRL are the cause of Dent disease type 2 (DD2) [MIM:300555]. DD2 is a renal disease belonging to the 'Dent disease complex', a group of disorders characterized by proximal renal tubular defect, hypercalciuria, nephrocalcinosis, and renal insufficiency. The spectrum of phenotypic features is remarkably similar in the various disorders, except for differences in the severity of bone deformities and renal impairment. Characteristic abnormalities include low-molecular-weight proteinuria and other features of Fanconi syndrome, such as glycosuria, aminoaciduria, and phosphaturia, but typically do not include proximal renal tubular acidosis. Progressive renal failure is common, as are nephrocalcinosis and kidney stones., disease: Defects in OCRL are the cause of Lowe syndrome [MIM:309000]; also known as Lowe oculocerebrorenal syndrome. The Lowe syndrome is an X-linked multisystem disorder affecting eyes, nervous system, and kidney. It is characterized by hydrophthalmia, cataract, mental retardation, vitamin D-resistant rickets, aminoaciduria, and reduced ammonia production by the kidney. Ocular abnormalities include cataract, glaucoma, microphthalmos, and decreased visual acuity. Developmental delay, hypotonia, behavior abnormalities, and areflexia are also present. Renal tubular involvement is characterized by impaired reabsorption of bicarbonate, amino acids, and phosphate. Musculoskeletal abnormalities such as joint hypermobility, dislocated hips, and fractures may develop as consequences of renal tubular acidosis and hypophosphatemia. Cataract is the only significant manifestation in carriers and is detected by slit-lamp examination., function: Converts phosphatidylinositol 4,5-bisphosphate to phosphatidylinositol 4-phosphate. Also converts inositol 1,4,5-trisphosphate to inositol 1,4-bisphosphate and inositol 1,3,4,5-tetrakisphosphate to inositol 1,3,4-trisphosphate. May function in lysosomal membrane trafficking by regulating the specific pool of phosphatidylinositol 4,5-bisphosphate that is associated with lysosomes., similarity: Belongs to the inositol-1,4,5-trisphosphate 5-phosphatase type II family., similarity: Contains 1 Rho-GAP domain., tissue specificity: Brain, skeletal muscle, heart, kidney, lung, placenta and fibroblasts.,

Research Area

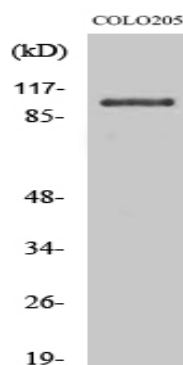
Inositol phosphate metabolism; Phosphatidylinositol signaling system;

Image Data

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Western blot analysis of lysate from COLO205 cells treated with Forskolin, using OCRL antibody.



Western Blot analysis of various cells using OCRL Polyclonal Antibody

Note

For research use only.