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Anti-OCRL Antibody

Catalog # AP59647

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q01968
Reactivity	Human, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	104205

Additional Information

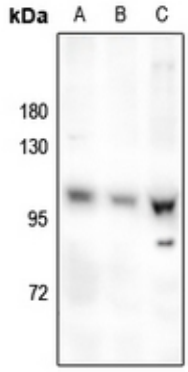
Gene ID	4952
Other Names	INPP5F; OCRL1; Inositol polyphosphate 5-phosphatase OCRL-1; Lowe oculocerebrorenal syndrome protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human OCRL. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

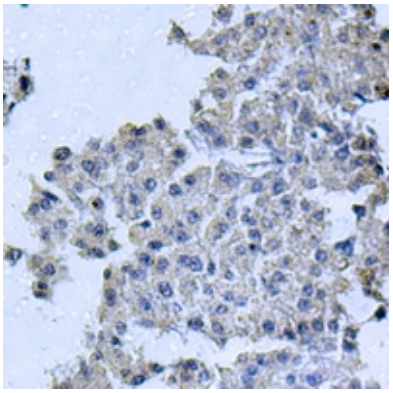
Name	OCRL (HGNC:8108)
Synonyms	OCRL1 {ECO:0000303|Ref.2}
Function	Catalyzes the hydrolysis of the 5-position phosphate of phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2) and phosphatidylinositol-3,4,5-bisphosphate (PtdIns(3,4,5)P3), with the greatest catalytic activity towards PtdIns(4,5)P2 (PubMed:10764818, PubMed:15474001, PubMed:7761412, PubMed:9430698). Also, is able to hydrolyze the 5-phosphate of inositol 1,4,5-trisphosphate and of inositol 1,3,4,5-tetrakisphosphate (PubMed:15474001, PubMed:40969890, PubMed:7761412). Regulates traffic in the endosomal pathway by regulating the specific pool of phosphatidylinositol 4,5-bisphosphate that is associated with endosomes (PubMed:21971085). Involved in primary cilia assembly (PubMed:22228094, PubMed:22543976). Acts as a regulator of phagocytosis, hydrolyzing PtdIns(4,5)P2 to promote phagosome closure, through attenuation of PI3K signaling (PubMed:22072788).

Cellular Location	Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:D3ZGS3}. Early endosome membrane. Membrane, clathrin-coated pit. Cell projection, cilium, photoreceptor outer segment. Cell projection, cilium. Cytoplasmic vesicle {ECO:0000250|UniProtKB:D3ZGS3}. Endosome. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:D3ZGS3}. Lysosome Note=Also found on macropinosomes (PubMed:25869668). Colocalized with APPL1 on phagosomes (PubMed:22072788).
Tissue Location	Brain, skeletal muscle, heart, kidney, lung, placenta and fibroblasts. Expressed in the retina and the retinal pigment epithelium.

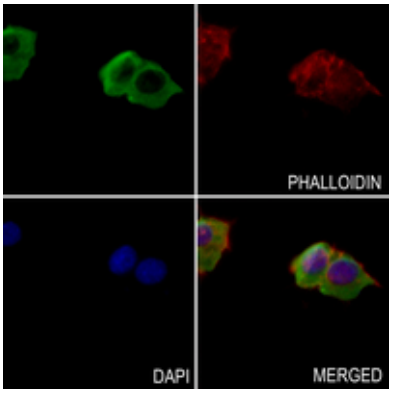
Images



Western blot analysis of OCRL expression in MG63 (A), A549 (B), HEK293T (C) whole cell lysates. (Predicted band size: 104 kD; Observed band size: 104 kD)



Immunohistochemical analysis of OCRL staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of OCRL staining in RAW264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.