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# OCRL Antibody (clone 4A6)

**Mouse Monoclonal Antibody**

**Catalog # ALS14393**

## Specification

### OCRL Antibody (clone 4A6) - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | Q01968 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Calculated MW | **104kDa KDa** |

### OCRL Antibody (clone 4A6) - Additional Information

**Gene ID** 4952

**Other Names**
Inositol polyphosphate 5-phosphatase OCRL-1, 3.1.3.36, Lowe oculocerebrorenal syndrome protein, OCRL, INPP5F, OCRL1

**Target/Specificity**
Human OCRL

**Reconstitution & Storage**
Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**
OCRL Antibody (clone 4A6) is for research use only and not for use in diagnostic or therapeutic procedures.

### OCRL Antibody (clone 4A6) - 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:<a href="http://www.uniprot.org/citations/7761412" target="_blank">7761412</a>, PubMed:<a href="http://www.uniprot.org/citations/15474001" target="_blank">15474001</a>, PubMed:<a href="http://www.uniprot.org/citations/9430698" target="_blank">9430698</a>, PubMed:<a href="http://www.uniprot.org/citations/10764818" target="_blank">10764818</a>). Able also to hydrolyze the 5-phosphate of inositol 1,4,5-trisphosphate and of inositol 1,3,4,5-tetrakisphosphate (PubMed:<a href="http://www.uniprot.org/citations/7761412" target="_blank">7761412</a>, PubMed:<a href="http://www.uniprot.org/citations/25869668" target="_blank">25869668</a>).

Regulates traffic in the endosomal pathway by regulating the specific pool of phosphatidylinositol 4,5-bisphosphate that is associated with endosomes (PubMed:<a href="http://www.uniprot.org/citations/21971085" target="_blank">21971085</a>). Involved in primary cilia assembly (PubMed:<a href="http://www.uniprot.org/citations/22228094" target="_blank">22228094</a>, PubMed:<a href="http://www.uniprot.org/citations/22543976" target="_blank">22543976</a>). Acts as a regulator of phagocytosis, hydrolyzing PtdIns(4,5)P2 to promote phagosome closure, through attenuation of PI3K signaling (PubMed:<a href="http://www.uniprot.org/citations/22072788" target="_blank">22072788</a>).

**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).

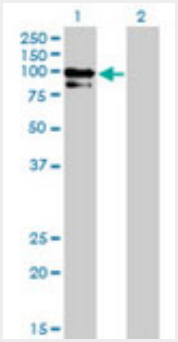
**Tissue Location**
Brain, skeletal muscle, heart, kidney, lung, placenta and fibroblasts. Expressed in the retina and the retinal pigment epithelium.

## OCRL Antibody (clone 4A6) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## OCRL Antibody (clone 4A6) - Images




Western blot of OCRL expression in transfected 293T cell line by OCRL monoclonal antibody ALS14393.

## OCRL Antibody (clone 4A6) - Background

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. Involved in primary cilia assembly.

**OCRL Antibody (clone 4A6) - References**

Attree O.,et al.Nature 358:239-242(1992).
Attree O.,et al.Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
Nussbaum R.L.,et al.Hum. Genet. 99:145-150(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Ross M.T.,et al.Nature 434:325-337(2005).