

Product datasheet

Anti-OCRL antibody [EP10256] ab181039

KO VALIDATED RabMAb

[1 References](#) [3 Images](#)

Overview

Product name	Anti-OCRL antibody [EP10256]
Description	Rabbit monoclonal [EP10256] to OCRL
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB Unsuitable for: ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	293T, SH-SY5Y, HeLa and JAR cell lysates. Permeabilized SH-SY5Y cells.
General notes	<p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant

Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EP10256
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181039 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/10 - 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/5000. Predicted molecular weight: 104 kDa.

Application notes Is unsuitable for ICC/IF, IHC-P or IP.

Target

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.

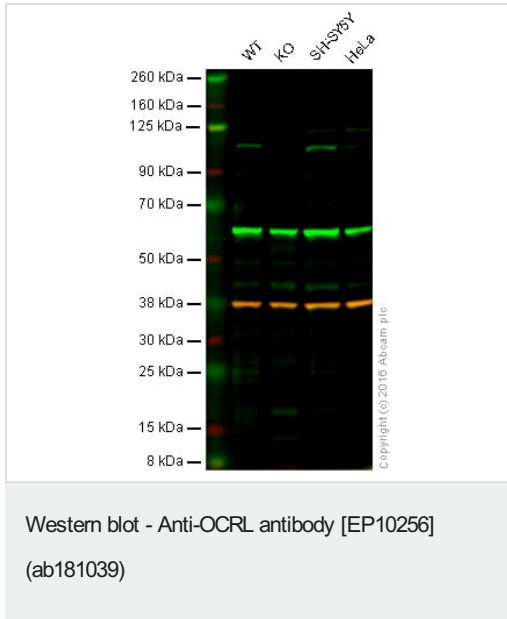
Tissue specificity Brain, skeletal muscle, heart, kidney, lung, placenta and fibroblasts.

Involvement in disease Defects in OCRL are the cause of Lowe oculocerebrorenal syndrome (OCRL) [MIM:309000]. It 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.

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.

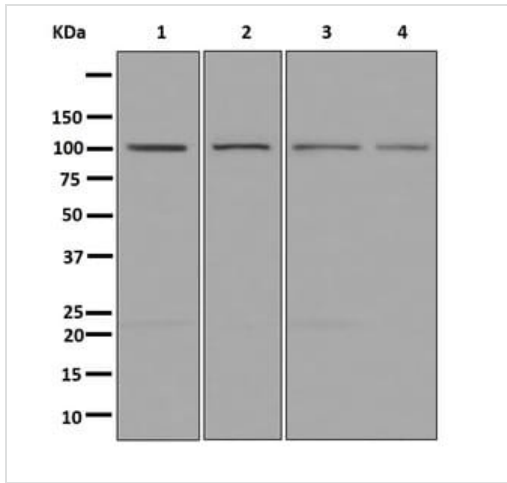
Sequence similarities Belongs to the inositol-1,4,5-trisphosphate 5-phosphatase type II family. Contains 1 Rho-GAP domain.

Images



Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: INPP5F knockout HAP1 cell lysate (20 µg)
Lane 3: SH-SY5Y cell lysate (20 µg)
Lane 4: HeLa cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab181039 observed at 105 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab181039 was shown to recognize INPP5F when INPP5F knockout samples were used, along with additional cross-reactive bands. Wild-type and INPP5F knockout samples were subjected to SDS-PAGE. ab181039 and **ab8245** (loading control to GAPDH) were diluted 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

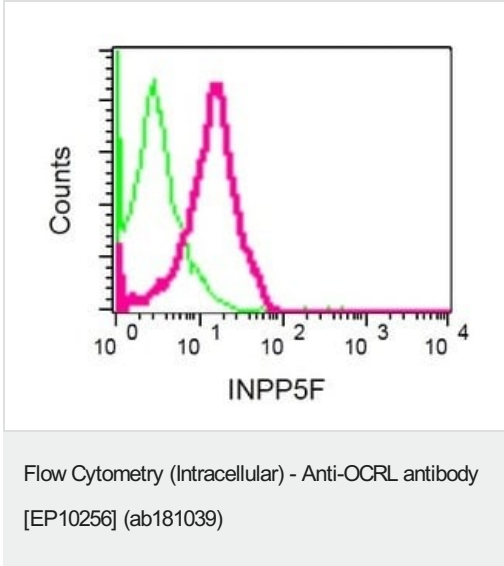


All lanes : Anti-OCRL antibody [EP10256] (ab181039) at 1000 µg

Lane 1 : 293T cell lysates
Lane 2 : SH-SY5Y cell lysates
Lane 3 : HeLa cell lysates
Lane 4 : JAR cell lysates

Lysates/proteins at 10 µg per lane.

Predicted band size: 104 kDa



Intracellular flow cytometric analysis of permeabilized SH-SY5Y cells using ab181039 at a 1/10 dilution (red) or a rabbit IgG (negative) (green).

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