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# ORP1 Rabbit mAb

Catalog # AP75841

## Product Information

| | |
|---|---|
| **Application** | WB, FC |
| **Primary Accession** | Q9BXW6 |
| **Reactivity** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Monoclonal Antibody |
| **Isotype** | IgG |
| **Conjugate** | Unconjugated |
| **Purification** | Affinity Purified |
| **Calculated MW** | 108470 |

## Additional Information

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|---|---|
| **Gene ID** | 114876 |
| **Other Names** | OSBPL1A |
| **Dilution** | WB~~1:1000-1:5000 FC~~1:10-1:100 |
| **Format** | Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

## Protein Information

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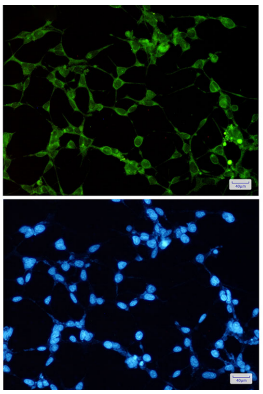
|---|---|
| **Name** | OSBPL1A ( HGNC:16398) |
| **Function** | Binds phospholipids; exhibits strong binding to phosphatidic acid and weak binding to phosphatidylinositol 3-phosphate (By similarity). Stabilizes GTP-bound RAB7A on late endosomes/lysosomes and alters functional properties of late endocytic compartments via its interaction with RAB7A (PubMed:16176980). Binds 25-hydroxycholesterol and cholesterol (PubMed:17428193). |
| **Cellular Location** | Late endosome. Note=Colocalizes with RAB7A, RAB9A and LAMP1 in late endosomes |

## Background

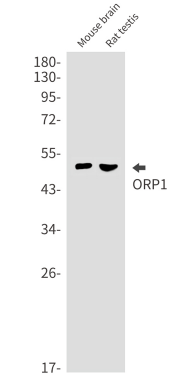
ORP1L (Oxysterol-binding protein-related protein 1L) is a lipid transfer protein that belongs to the family of

OSBP-related proteins (ORPs). It is recruited to lysosomes via its ankyrin repeat domains that bind to Rab7(PMID: 34504082). ORP1L also possesses an FFAT motif, which allows it to interact with the ER resident VAP proteins to aid in establishing the ER-lysosomes contacts. ORP1L is expressed in various tissues, with particularly high expression in the brain, lungs, and macrophages. ORP1L plays a crucial role in cholesterol homeostasis. Disruption of ORP1L function can lead to a block in cholesterol transport to the ER, resulting in the accumulation of cholesterol-enriched LELs in the Golgi/perinuclear region. This can disrupt cellular cholesterol balance, potentially contributing to various metabolic diseases. This suggests that ORP1L is necessary for the normal functioning of cholesterol export from the endo-lysosomal system to the ER, and its dysfunction could be implicated in the progression of diseases related to cholesterol metabolism dysregulation(PMID: 28564600). The molecular weight of ORP1L is 50 kDa.

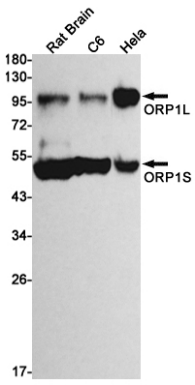
## Images



Immunocytochemistry analysis of ORP1 (green) in 293t using ORP1 antibody,and DAPI(blue).




Western blot analysis of ORP1 in mouse brain, rat testis lysates using ORP1 antibody.




Western blot analysis of ORP1 in rat Brain, C6, Hela lysates using ORP1 antibody

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