10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

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

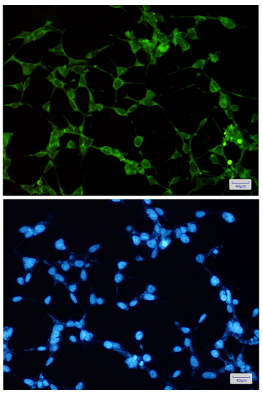
Name	OSBPL1A (HGNC:16398)
Function	Binds phospholipids; exhibits strong binding to phosphatidic acid and weak binding to phosphatidylinositol 3-phosphate (By similarity). Stabilizes GTP-bound RAB7A on late endosomes/lysosomes and alters functional properties of late endocytic compartments via its interaction 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

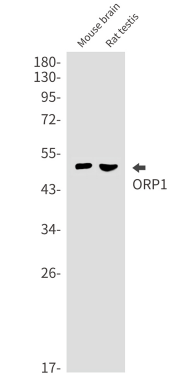
ORP1L (Oxysterol-binding protein-related protein 1L) is a lipid transfer protein that belongs to the family of

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.

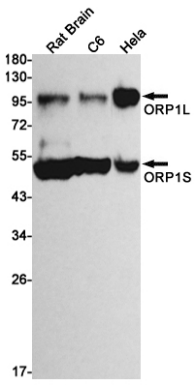
Images



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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