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Anti-OSBP1 Antibody

Catalog # ABO11254

Product Information

Application	WB
Primary Accession	P22059
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Oxysterol-binding protein 1(OSBP) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5007
Other Names	Oxysterol-binding protein 1, OSBP (HGNC:8503), OSBP1
Calculated MW	89421
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Subcellular Localization	Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. When bound to oxysterols, translocates to the periphery of Golgi membranes.
Tissue Specificity	Widely expressed. .
Source	Eukaryota
Protein Name	Oxysterol-binding protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human OSBP1(290-304aa WQKSLQYERDQRIRL), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated

	freezing and thawing.
Sequence Similarities	Belongs to the OSBP family.

Protein Information

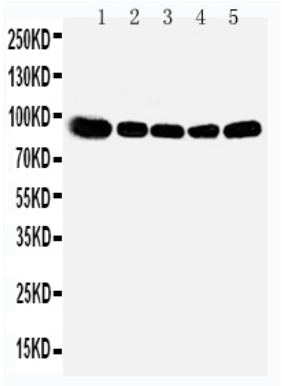
Name	OSBP (HGNC:8503)
Synonyms	OSBP1
Function	Lipid transporter involved in lipid countertransport between the Golgi complex and membranes of the endoplasmic reticulum: specifically exchanges sterol (cholesterol) with phosphatidylinositol 4-phosphate (PI4P, 1,2-diacyl-sn-glycero-3-phospho-(1D-myo-inositol 4- phosphate)), delivering sterol to the Golgi in exchange for PI4P, which is subsequently degraded by the SAC1/SACM1L phosphatase in the endoplasmic reticulum (PubMed:24209621, PubMed:28978670). Binds cholesterol and a range of oxysterols including 25-hydroxycholesterol (PubMed:15746430, PubMed:17428193). Cholesterol binding promotes the formation of a complex with PP2A and a tyrosine phosphatase which dephosphorylates ERK1/2, whereas 25-hydroxycholesterol causes its disassembly (PubMed:15746430). Regulates cholesterol efflux by decreasing the stability of the relatively short lived ABCA1 protein (an important point of control for cholesterol efflux activity) (PubMed:18450749).
Cellular Location	Cytoplasm, cytosol. Cytoplasm, perinuclear region. Golgi apparatus membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein Golgi apparatus, trans-Golgi network Note=Predominantly cytosolic.
Tissue Location	Widely expressed..

Background

OSBP(Oxysterol-Binding Protein), also called OSBP1, is a protein that in humans is encoded by the OSBP gene. Im et al.(2005) reported the structure of the full-length yeast oxysterol-binding-protein Osh4, a member of the OSBP-related protein(ORP) family, at 1.5- to 1.9-angstrom resolution in complexes with ergosterol, cholesterol, and 7-, 20- and 25-hydroxy cholesterol. Moreira et al.(2001) refined the localization of the OSBP1 gene to chromosome 11q12.1 by radiation hybrid analysis. Wang et al.(2005) found that OSBP functions as a cholesterol-binding scaffolding protein coordinating the activity of 2 phosphatases to control the extracellular signal-regulated kinase(ERK) signaling pathway. Cytosolic OSBP formed an approximately 440-kD oligomer with a member of the PTPPBS family of tyrosine phosphatases, the serine/threonine phosphatase PP2A, and cholesterol.

Images

Anti-OSBP1 antibody, ABO11254, Western blottingLane 1: Rat Kidney Tissue LysateLane 2: Rat Spleen Tissue LysateLane 3: Rat Lung Tissue LysateLane 4: HELA Cell LysateLane 5: A549 Cell Lysate



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