

Anti-OSBP1 Antibody

Catalog # ABO11254

### Specification

# Anti-OSBP1 Antibody - Product Information

ApplicationWBPrimary AccessionP22059HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit 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.

## Anti-OSBP1 Antibody - Additional Information

Gene ID 5007

**Other Names** Oxysterol-binding protein 1, OSBP (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=8503" target="\_blank">HGNC:8503</a>), OSBP1

Calculated MW 89421 MW KDa

**Application Details** Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse<br>

**Subcellular Localization** Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. When bound to oxysterols, translocates to the periphery of Golgi membranes.

**Tissue Specificity** Widely expressed.

**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 aliguotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

**Sequence Similarities** Belongs to the OSBP family.

# Anti-OSBP1 Antibody - 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 with phosphatidylinositol 4-phosphate (PI4P), delivering sterol to the Golgi in exchange for PI4P, which is degraded by the SAC1/SACM1L phosphatase in the endoplasmic reticulum (PubMed: <a

href="http://www.uniprot.org/citations/24209621" target="\_blank">24209621</a>). Binds cholesterol and a range of oxysterols including 25-hydroxycholesterol (PubMed:<a href="http://www.uniprot.org/citations/15746430" target="\_blank">15746430</a>, PubMed:<a href="http://www.uniprot.org/citations/17428193" target="\_blank">17428193</a>). 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:<a href="http://www.uniprot.org/citations/15746430" target=" blank">15746430</a>). Regulates cholesterol efflux by decreasing ABCA1 stability (PubMed: <a

href="http://www.uniprot.org/citations/18450749" target=" blank">18450749</a>).

#### **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..

## Anti-OSBP1 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation



Flow Cytomety

<u>Cell Culture</u>

Anti-OSBP1 Antibody - 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

## Anti-OSBP1 Antibody - 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.