

SACM1L Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57488**Specification**

SACM1L Polyclonal Antibody - Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O9NTJ5
Reactivity	Rat, Pig, Cat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SACM1L 431-530/587
Epitope Specificity	IgG
Isotype	
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane.
SIMILARITY	Contains 1 SAC domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

The *Saccharomyces cerevisiae* SAC1 gene modulates yeast actin function and alleviates the essential requirement for phosphatidylinositol transfer protein (sec14p) activity in Golgi secretory function. The SAC1 gene product (Sac1p) is an integral membrane lipid phosphatase of the endoplasmic reticulum (ER) and the Golgi complex and contains a Sac phosphatase domain (1-2). Sac1p functions in a wide range of cellular processes including inositol metabolism, actin cytoskeletal organization, endoplasmic reticulum ATP transport, phosphatidylinositol-phosphatidylcholine transfer protein function and multiple-drug sensitivity (3). Sac1p is an important regulator of microsomal ATP transport, providing a link between inositol phospholipid signaling and ATP-dependent processes in the yeast ER (4). Defects in Sac1p relieves the requirement for Sec14p by altering phospholipid metabolism to expand the pool of diacylglycerol in the Golgi (5). Sac1p dysfunction exerts its pleiotropic effects on yeast Golgi function, the organization of the actin cytoskeleton, and the cellular requirement for inositol, through altered metabolism of inositol glycerophospholipids (6). These effects suggest the secretory and cytoskeletal activities are coordinated to achieve proper spatial regulation of secretion in *S. cerevisiae* (7).

SACM1L Polyclonal Antibody - Additional Information**Gene ID** 22908**Other Names**

Phosphatidylinositol-3-phosphatase SAC1, 3.1.3.64, Phosphatidylinositol-4-phosphate phosphatase, Suppressor of actin mutations 1-like protein, SACM1L

Target/Specificity

Detected in heart, brain, lung, liver, kidney, pancreas and testis.

Dilution

`IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A`

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

SACM1L Polyclonal Antibody - Protein Information

Name SACM1L ([HGNC:17059](#))

Function

Phosphoinositide phosphatase which catalyzes the hydrolysis of phosphatidylinositol 4-phosphate (PtdIns(4)P) (PubMed:24209621, PubMed:27044890, PubMed:29461204, PubMed:30659099). Can also catalyze the hydrolysis of phosphatidylinositol 3-phosphate (PtdIns(3)P) and has low activity towards phosphatidylinositol-3,5-bisphosphate (PtdIns(3,5)P₂) (By similarity). Shows a very robust PtdIns(4)P phosphatase activity when it binds PtdIns(4)P in a 'cis' configuration in the cellular environment, with much less activity seen when it binds PtdIns(4)P in 'trans' configuration (PubMed:24209621, PubMed:29461204, PubMed:30659099). PtdIns(4)P phosphatase activity (when it binds PtdIns(4)P in 'trans' configuration) is enhanced in the presence of PLEKHA3 (PubMed:30659099).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane. Note=Trafficking between the ER and Golgi is regulated by nutrient status and by TMEM39A (PubMed:31806350) Localizes to endoplasmic reticulum-plasma membrane contact sites (EPCS) in the presence of phosphatidylinositol-4,5-bisphosphate (PubMed:27044890).

Tissue Location

Detected in heart, brain, lung, liver, kidney, pancreas and testis.

SACM1L Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SACM1L Polyclonal Antibody - Images