

## Pma1p (40B7): sc-57978

### BACKGROUND

Pma1p represents the major plasma membrane proton ATPase in yeast, and it is one of the most abundant and long lasting polytopic proteins involved in the secretory pathway. Pma1p is an enzyme with critical physiological roles both in the absence or presence of environmental stress. Pma1p reaches the cell surface after it is made in lipid rafts, membrane microdomains with a higher amount of saturated fatty acids and sterols than the rest of the membrane. Lipid rafts play key roles in many cellular processes, such as signaling, cytokinesis, and response to environment, and these rafts contain important proteins. Oligomerization of Pma1p facilitates its partition into the rafts and its transport to the cell surface. The Sec24p homolog Lst1p directly conveys Pma1p into a COPII vesicle for eventual export.

### REFERENCES

- Bagnat, M., Keränen, S., Shevchenko, A., Shevchenko, A. and Simons, K. 2000. Lipid rafts function in biosynthetic delivery of proteins to the cell surface in yeast. *Proc. Natl. Acad. Sci. USA* 97: 3254-3259.
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### SOURCE

Pma1p (40B7) is a mouse monoclonal antibody raised against a nuclear preparation of *S. cerevisiae* origin.

### PRODUCT

Each vial contains 250 µl culture supernatant containing IgM in PBS with < 0.1% sodium azide.

### APPLICATIONS

Pma1p (40B7) is recommended for detection of Pma1p of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:500-1:2500) and immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500).

Molecular Weight of Pma1p: 100/400 kDa.

### SELECT PRODUCT CITATIONS

- Shi, S., Notenboom, S., Dumont, M.E. and Ballatori, N. 2010. Identification of human gene products containing Pro-Pro-x-Tyr (PY) motifs that enhance glutathione and endocytotic marker uptake in yeast. *Cell. Physiol. Biochem.* 25: 293-306.
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### STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.