

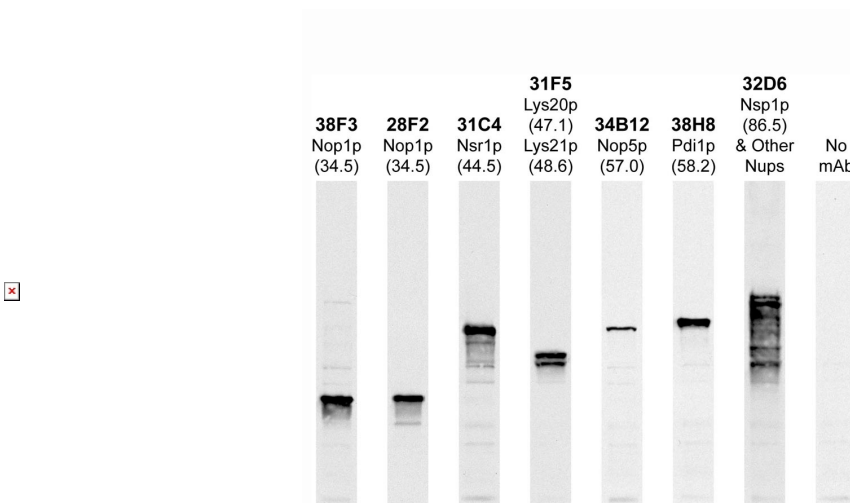
References:

1. Smardon AM et al. The RAVE complex is an isoform-specific V-ATPase assembly factor in yeast. *Mol Biol Cell* 25:356-67 (2014). **ICC/IF; Saccharomyces cerevisiae** . [PubMed: 24307682](https://pubmed.ncbi.nlm.nih.gov/24307682/).
2. Epstein T et al. Separation of metabolic supply and demand: aerobic glycolysis as a normal physiological response to fluctuating energetic demands in the membrane. *Cancer Metab* 2:7 (2014). **WB**. [PubMed: 24982758](https://pubmed.ncbi.nlm.nih.gov/24982758/).
3. Dighe SA, Kozminski KG. Secretory Vesicles Deliver Cdc42p to Sites of Polarized Growth in *S. cerevisiae*. *PLoS One* 9:e99494 (2014). **WB; Saccharomyces cerevisiae** . [PubMed: 24945395](https://pubmed.ncbi.nlm.nih.gov/24945395/).
4. Thayer NH et al. Identification of long-lived proteins retained in cells undergoing repeated asymmetric divisions. *Proc Natl Acad Sci U S A* 111:14019-26 (2014). [PubMed: 25228775](https://pubmed.ncbi.nlm.nih.gov/25228775/).
5. Henderson KA et al. Mother-daughter asymmetry of pH underlies aging and rejuvenation in yeast. *Elife* 3:e03504 (2014). [PubMed: 25190112](https://pubmed.ncbi.nlm.nih.gov/25190112/)
6. Wade F et al. Relationship between homo-oligomerization of a mammalian olfactory receptor and its activation state demonstrated by bioluminescence resonance energy transfer. *J Biol Chem* 286:15252-9 (2011). **WB**. [PubMed: 21454689](https://pubmed.ncbi.nlm.nih.gov/21454689/).
7. Gulshan K et al. Compartment-specific synthesis of phosphatidylethanolamine is required for normal heavy metal resistance. *Mol Biol Cell* 21:443-55 (2010). **WB; Saccharomyces cerevisiae** . [PubMed: 20016005](https://pubmed.ncbi.nlm.nih.gov/20016005/).
8. Soper JH et al. {alpha}-Synuclein-induced Aggregation of Cytoplasmic Vesicles in *Saccharomyces cerevisiae*. *Mol Biol Cell* 19:1093-103 (2008). **WB; Saccharomyces cerevisiae** . [PubMed: 18172022](https://pubmed.ncbi.nlm.nih.gov/18172022/)
9. Martínez-Muñoz GA & Kane P Vacuolar and Plasma Membrane Proton Pumps Collaborate to Achieve Cytosolic pH Homeostasis in Yeast. *J Biol Chem* 283:20309-19 (2008). **ICC/IF; Saccharomyces cerevisiae** . [PubMed: 18502746](https://pubmed.ncbi.nlm.nih.gov/18502746/).
10. Clark SW & Rose MD Arp10p is a pointed-end-associated component of yeast dynactin. *Mol Biol Cell* 17:738-48 (2006). [PubMed: 16291862](https://pubmed.ncbi.nlm.nih.gov/16291862/).
11. Zhang J et al. Characterization of the transport mechanism and permeant binding profile of the uridine permease Fui1p of *Saccharomyces cerevisiae*. *J Biol Chem* 281:28210-21 (2006). **WB; Saccharomyces cerevisiae** . [PubMed: 16854981](https://pubmed.ncbi.nlm.nih.gov/16854981/).
12. Shibagaki N & Grossman AR The role of the STAS domain in the function and biogenesis of a sulfate transporter as probed by random mutagenesis. *J Biol Chem* 281:22964-73 (2006). [PubMed: 16754669](https://pubmed.ncbi.nlm.nih.gov/16754669/).
13. Okamoto M, et al. Glycosylphosphatidylinositol-anchored proteins are required for the transport of detergent-resistant microdomain-associated membrane proteins, Tat2p and Fur4p. *J. Biol. Chem.* 281:4013-23 (2006).

Pma1p Mouse Monoclonal Antibody

MCA-40B7

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, ICC/IF	Mouse	IgG	100kDa	Sc



Western blots of whole yeast protein extracts with a collection of EnCor antibodies. The blot for MCA-40B7 is in the indicated lane, and the number indicates the SDS-PAGE molecular weight in kiloDaltons.

Background:

Pma1p is an abundant multidomain protein of yeast which is localized in the plasma membrane. It functions as a major regulator of cytoplasmic pH by pumping protons out of the cell. It is part of the P2 subgroup of cation-transporting ATPases. Since Pma1p is a major plasma membrane protein, antibodies which bind to it such as MCA-40B7 are useful markers of yeast plasma membranes. The MCA-40B7 antibody was originally generated after immunization of a yeast nuclear preparation into a mouse for monoclonal antibody production. On screening antibodies generated from the resulting cloned hybridomas, one was found to bind to the yeast plasma membrane in immunofluorescence. This antibody was subsequently found to recognize the yeast Pma1p protein.

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Abbreviation Key:

mAb—Monoclonal Antibody **pAb**—Polyclonal Antibody **WB**—Western Blot **IF**—Immunofluorescence **ICC**—Immunocytochemistry **IHC**—Immunohistochemistry **E**—ELISA **Hu**—Human **Mo**—Monkey **Do**—Dog **Rt**—Rat **Ms**—Mouse **Co**—Cow **Pi**—Pig **Ho**—Horse **Ch**—Chicken **Dr**—*D. rerio* **Dm**—*D. melanogaster* **Sm**—*S. mutans* **Ce**—*C. elegans* **Sc**—*S. cerevisiae* **Sa**—*S. aureus* **Ec**—*E. coli*.

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