

Catalogue #MCA-40B7: Monoclonal Antibody 40B7 to Yeast Plasma Membrane ATPase Pma1p

The Immunogen: 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 proteins out of the cell. It is and 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 makers of yeast plasma membranes.

Diagram of Domain Structure: Generated from sequence of yeast Pma1p sequence [CAA96708](#) (with the [SMART](#) program from [EMBL](#) in Heidleberg). From N-terminus (left in diagram) to C-terminus the domains are as follows. Following two regions of low complexity (purple) is PFAM: Cation_ATPase_N which refers to the [Cation ATPase N-terminal domain](#). PFAM: E1_E2 ATPase refers to the [E1 E2 ATPase domain](#). PFAM Hydrolase refers to the [Hydrolase domain](#). Finally there are 6 predicted transmembrane segments (Blue). Scale is number of amino acids.



The Antibody: Mouse monoclonal antibody, in the form of sterile-filtered cell culture fluid from an Integra CL-350 biochamber plus sodium azide. The solution contains 10% bovine serum, and about 0.5 mg/ml antibody. The IgG isotype is not known.

Suggestions for use: For western blots of yeast protein samples (cell lysates), try MCA-40B7 diluted 1/10,000, followed by chemiluminescent detection (ECL). For non-ECL western detection methods, try MCA-40B7 diluted 1/1,000 to 1/5,000. For immunofluorescence on yeast cells, try MCA-40B7 diluted 1/500 to 1/5,000. MCA-40B7 reacts with Pma1p based on the size of the band detected on western blots and the immunofluorescence localization pattern. MCA-40B7 also detects Pma1p-containing fusion proteins on western blots. Antibody preparation contains 10mM sodium azide preservative (Link to <http://www.encorbio.com/MSDS/azide.htm> for Material Safety Data Sheet).. Avoid repeated freezing and thawing, store at 4°C or -20°C.

References:

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Limitations: This product is for research use only and is not approved for use in humans or in clinical diagnosis.

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