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Pst1 Antibody
Catalog # ASC10427

Specification

Pst1 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q12355
Other Accession	Q12355, 17380259
Reactivity	**Yeast**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**49 kDa KDa**
Application Notes	**Pst1 antibody can be used for detection of Pst1 by Western blot and ELISA at 1 µg/mL.**

Pst1 Antibody - Additional Information

Gene ID **851625**

Other Names
Pst1 Antibody: HPF2, HPF2, YDR055W, D4214, YD9609.09, Cell wall mannoprotein PST1, Haze protective factor 2, Protoplast secreted protein 1

Target/Specificity
PST1;

Reconstitution & Storage
Pst1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Pst1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Pst1 Antibody - Protein Information

Name PST1

Synonyms HPF2

Function
Has a partially redundant function to ECM33 in cell wall integrity. May be involved in a repair mechanism activated in response to cell wall damage.

Cellular Location
Cell membrane; Lipid-anchor, GPI-anchor. Secreted, cell wall. Note=Identified as GPI-anchored plasma membrane protein (GPI-PMP) as well as non-covalently-linked, soluble protein of the cell

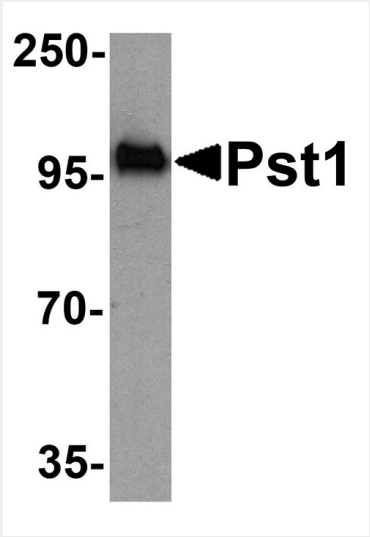
wall. Secreted by regenerating protoplasts. In budded cells, concentrates at the surface of the buds

Pst1 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 Cytomety
- Cell Culture

Pst1 Antibody - Images



Western blot analysis of TM yeast Pst1 protein (50 ng) with Pst1 antibody at 1 µg/mL.

Pst1 Antibody - Background

Pst1 Antibody: Protoplast secreted protein 1 (Pst1) is an anchored plasma membrane protein. Pst1 was previously identified as a protein secreted by yeast regenerating protoplasts, which suggests a role in cell wall construction. Pst1 is a protein with 444 amino acids and is attached to yeast cell wall via a glycosylphosphatidylinisotol (GPI) anchor. Pst1 contains 15 potential N-linked glycosylation sites and is heavily glycosylated. It migrates at approximately 200 kDa on SDS-PAGE when produced in wild type S. cerevisiae. Our Pst1 protein was expressed in a genetically manipulated triple-mutant (TM) S. cerevisiae stain (Δoch1 Δmnn1 Δmnn4), which results in the production of sole Man8GlcNAc2 carbohydrate structures and Pst1 migration at approximately 100 kDa. When produced in the TM yeast, Pst1 can be recognized by several glycan-specific HIV-1 broadly neutralizing antibodies, including 2G12 and recently identified PGT antibodies. Among several heavily N-glycosylated TM yeast glycoproteins, Pst1 shows higher affinity for 2G12 and efficiently inhibits gp120 interactions with 2G12 and DC-SIGN, and it also blocks 2G12-mediated neutralization of HIV-1 pseudoviruses.

Pst1 Antibody - References

Pardo M, Monteoliva L, Pla J, et al. Two-dimensional analysis of proteins secreted by Saccharomyces cerevisiae regenerating protoplasts: a novel approach to study the cell wall. Yeast 1999; 15:459-72.
Pardo M, Monteoliva L, Vazquez P, et al. PST1 and ECM33 encode two yeast cell surface GPI proteins important for cell wall integrity. Microbiology 2004; 150:4157-70.
Luallen RJ, Lin JQ, Fu H, et al. An Engineered Saccharomyces cerevisiae Strain Binds the Broadly Neutralizing Human Immunodeficiency Virus Type 1 Antibody 2G12 and Elicits Mannose-Specific gp120-Binding Antibodies. J. Virol. 2008; 82:6447-57.
Luallen RJ, Fu H, Agrawal-Gamse C, et al. A Yeast Glycoprotein Shows High-Affinity Binding to the Broadly Neutralizing Human Immunodeficiency Virus Antibody 2G12 and Inhibits gp120 Interactions with 2G12 and DC-SIGN. J. Virol. 2009; 83:4861-70.