SANTA CRUZ BIOTECHNOLOGY, INC.

Pdr1 (yP-18): sc-27251

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The Power to Question

BACKGROUND

The transcription regulator, Pdr1, activates the transcription of numerous genes involved in a wide range of functions, including resistance to physical and chemical stress, membrane transport, and organelle function in *Saccharomyces cerevisiae*. PDR1 encodes a transcription factor that acts as a regulator of pleiotropic drug resistance (PDR) in *Saccharomyces cerevisiae*. The yeast transcription factors Pdr1 and Pdr3 control pleiotropic drug resistance development by regulating expression of ATP-binding cassette (ABC) drug efflux pumps through binding to cis-acting sites known as PdrEs (Pdr responsive elements). Mutations at the yeast Pdr1 transcriptional regulator locus are responsible for overexpression of the three ABC transporter genes Pdr5, SNQ2 and YOR1, that are associated with multiple drug resistance.

REFERENCES

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2. Wolfger, H., et al. 1997. The yeast ATP binding cassette (ABC) protein genes Pdr10 and Pdr15 are novel targets for the Pdr1 and Pdr3 transcriptional regulators. FEBS Letts. 418: 269-274.
3. Carvajal, E., et al. 1997. Molecular and phenotypic characterization of yeast Pdr1 mutants that show hyperactive transcription of various ABC multidrug transporter genes. Mol. Gen. Genet. 256: 406-415.
4. Delahodde, A., et al. 2001. Pse1/Kap121-dependent nuclear localization of the major yeast multidrug resistance (MDR) transcription factor Pdr1. Mol. Microbiol. 39: 304-312.
5. Hanson, P.K., et al. 2001. Energy-dependent flip of fluorescence-labeled phospholipids is regulated by nutrient starvation and transcription factors, Pdr1 and Pdr3. J. Biol. Chem. 276: 9861-9867.
6. Devaux, F., et al. 2001. An artificial transcription activator mimics the genome-wide properties of the yeast Pdr1 transcription factor. EMBO. Rep. 2: 493-498.
7. Tuttle, M.S., et al. 2003. A dominant allele of Pdr1 alters transition metal resistance in yeast. J. Biol. Chem. 278: 1273-1280.
8. Gao, C., et al. 2004. On the mechanism of constitutive Pdr1 activator-mediated Pdr5 transcription in *Saccharomyces cerevisiae*: evidence for enhanced recruitment of coactivators and altered nucleosome structures. J. Biol. Chem. 279: 42677-42686.

SOURCE

Pdr1 (yP-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Pdr1 of *Saccharomyces cerevisiae* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27251 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pdr1 (yP-18) is recommended for detection of Pdr1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.