SANTA CRUZ BIOTECHNOLOGY, INC.

Isw1p (yN-19): sc-30580

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transcriptional control involves a complex interplay between gene-specific activators, the general transcription apparatus and chromatin. Organization of genomic DNA into chromatin aids in the regulation of gene expression by limiting access to transcriptional machinery. The SWI/SNF family of complexes, which are conserved from yeast to humans, are ATP-dependent chromatin-remodeling enzymes required for the transcription of a number of genes in yeast. Iswp1 is a member of the imitation-switch (ISWI) class of ATP-dependent chromatin remodeling complexes. It is an ATPase whose distinct forms regulate each stage of the transcription cycle. Iswp1 forms a complex with loc2p and loc4p to regulate transcription elongation. It also forms a complex with loc3p to repress transcription initiation. Isw1p forms two separable complexes *in vivo* which differ in their abilities to bind to DNA and nucleosomal substrates, which possibly accounts for differences in specific activities in nucleosomal spacing and sliding.

REFERENCES

1. Tsukiyama, T., et al. 1999. Characterization of the imitation switch subfamily of ATP-dependent chromatin-remodeling factors in *Saccharomyces cerevisiae*. Genes Dev. 13: 686-697.
2. Kent, N.A., et al. 2001. *In vivo* chromatin remodeling by yeast ISWI homologs Isw1p and Isw2p. Genes Dev. 15: 619-626.
3. Alen, C., et al. 2003. A role for chromatin remodeling in transcriptional termination by RNA polymerase II. Mol. Cell 10: 1441-1452.
4. Santos-Rosa, H.,et al. 2003. Methylation of Histone H3 K4 mediates association of the Isw1p ATPase with chromatin. Mol. Cell 12: 1325-1332.
5. Morillon, A., et al. 2003. Isw1 chromatin remodeling ATPase coordinates transcription elongation and termination by RNA polymerase II. Cell 115: 425-435.
6: Vary, J.C., Jr., et al. 2003. Yeast Isw1p forms two separable complexes *in vivo*. Mol. Cell. Biol. 23: 80-91.
7. Mellor, J., et al. 2004. ISWI complexes in *Saccharomyces cerevisiae*. Biochim. Biophys. Acta 1677: 100-112.

SOURCE

Isw1p (yN-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Isw1p 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-30580 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Isw1p (yN-19) is recommended for detection of Isw1p of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Isw1p: 131 kDa.

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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.