Saccharomyces cerevisiae Meyen ex E.C. Hansen

204518™

Description

Strain designation: N442-4A
Deposited As: *Saccharomyces cerevisiae* Hansen, teleomorph
Type strain: No
Mating type: a
Genotype: MATa his6 ade2 lys9 ura1 trp5 met2 arg4 mal suc

Storage Conditions

Product format: Frozen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Medium:
ATCC Medium 1069: YPAD medium
Temperature: 25°C
Atmosphere: Aerobic

Handling Procedures

Frozen ampoules packed in dry ice should either be thawed immediately or stored in liquid nitrogen. If liquid nitrogen storage facilities are not available, frozen ampoules may be stored at or below -70°C for approximately one week. **Do not under any circumstance store frozen ampoules at refrigerator freezer temperatures (generally -20°C)**. Storage of frozen material at this temperature will result in the death of the culture.

1. To thaw a frozen ampoule, place in a 25°C to 30°C water bath, until just thawed (approximately 5 minutes). Immerse the ampoule just sufficient to cover the frozen material. Do not agitate the ampoule.

2. Immediately after thawing, wipe down ampoule with 70% ethanol and aseptically transfer at least 50 µl (or 2-3 agar cubes) of the content onto a plate or broth with medium recommended.

3. Incubate the inoculum/strain at the temperature and conditions recommended.

4. Inspect for growth of the inoculum/strain regularly. The sign of viability is noticeable typically after 1-2 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

Notes

Mapping strains: chromosome loss mapping with CD6 (AB1)

lys9 mutants may turn yellow.

ade2 mutants turn red.

The basic procedure for inducing chromosome loss is: 1) incubate a cdc6/cdc6 multiply-heterozygous diploid (3000 cells/plate) on YEPD for 6 hours at 35C, 2) shift to 23°C, and 3) grow the survivors (about 300 cells) at 23°C for a few days. Replica plate the surviving colonies onto diagnostic media, paying particular attention to the very small colonies with

long lag periods before growth at 23°C. Usually 10 YEPD plates will be adequate; however, because of differences in viabilities among strains, plates with different numbers of starting cells may be required.

For a dominant unmapped marker, X, cross the mutant strain to cdc6 his4. Sporulate and dissect the diploid in order to place the marker into a cdc6 haploid background. Mate the cdc6 X strain to N439-. Loss of the chromosome carrying X should uncover a recessive mapped marker on the homolog.

For a recessive unmapped marker, y-, cross the mutant to N439-. Sporulate and dissect the diploid. Pick up cdc6 y- haploids in a variety of multiply auxotrophic backgrounds or backcross to N439- to get the recessive marker in a strain marked on all chromosomes. Mate cdc6 y- to a cdc6 his4 haploid. Loss of the chromosome carrying Y should uncover other recessive markers on the homolog.

Every effort is made to provide strains having the exact requirements as listed in the catalogue. However, yeast strains, like every other biological system, are constantly undergoing change, so that the sample you receive may not have exactly the same markers as determined when the strains were stored: reversion of certain mutations may have occurred, new mutations or suppressors which impart selective advantage to the strain may have been acquired and there may be ploidy changes. We urge checking the strains before extensive use.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Saccharomyces cerevisiae* Meyen ex E.C. Hansen (ATCC 204518)

References

References and other information relating to this material are available at www.atcc.org.

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Revision

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Contact Information

ATCC
10801 University Boulevard
Manassas, VA 20110-2209
USA
US telephone: 800-638-6597
Worldwide telephone: +1-703-365-2700
Email: tech@atcc.org or contact your local distributor