TM 1948 – ADAMS AGAR

INTENDED USE
For examination of sporulation in yeasts.

PRODUCT SUMMARY AND EXPLANATION
Sporulation is one of the most important characteristics for yeast taxonomic and genetic studies and makes possible the controlled hybridization of new strains. Sporulation depends on the state of the culture, the suitability of the medium employed and environmental factors. The formation of adequate numbers of 4-spored asci in yeasts is essential for genetical analysis, and, as spore viability decreases with age, it is advisable to induce rapid sporulation and transfer spores as soon as possible to a nutrient medium containing sugar. Adams has described a convenient way of obtaining ascospores from Baker's yeast. He described a modified Stantial (1935) acetate medium consisting of low concentrations of glucose, sodium acetate, and agar upon which he obtained high yields of asci with a large number of yeast cultures. Although, in his original experiments, Adams (1949) tested a variety of acetate salts, including potassium acetate, he found none of them superior to sodium acetate in about 0.24 per cent concentration.

COMPOSITION

Ingredients	Gms / Ltr
Dextrose (Glucose)	0.400
Sodium acetate	2.300
Agar	20.000

PRINCIPLE
Dextrose in the medium stimulates sporulation. Acetate and dextrose are used as carbon sources. Agar present acts as a solidifying agent.

INSTRUCTION FOR USE
- Dissolve 22.7 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely. Dispense in test tubes.
- Sterilize by autoclaving at 108-112°C (5-8 psi respectively) for 15 minutes.
- Allow the tubes to solidify in a slanted position.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Off-white to light yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear gel forms in tubes as slants.

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Sporulation	Incubation Temperature	Incubation Period
Saccharomyces cerevisiae	9763	50-100	Luxuriant	Positive	30°C	18-48 Hours

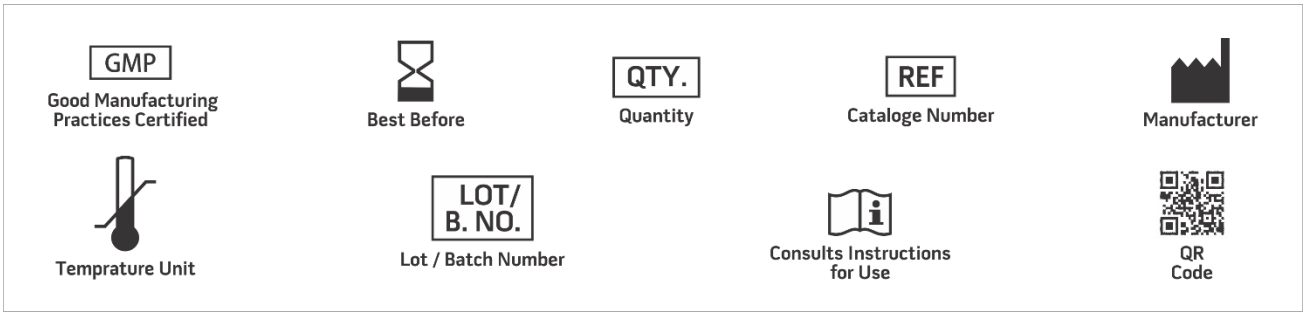
Aspergillus brasiliensis	16404	50-100	Luxuriant	Negative	30°C	18-48 Hours
Candida albicans	10231	50-100	Luxuriant	Negative	30°C	18-48 Hours
Penicillium notatum	10108	50-100	Luxuriant	Negative	30°C	18-48 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Adams A. M., 1949, Can. J. Res., 27, 179
2. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
3. Stantial H., 1935, The Sporulation of Yeast, Trans. Roy. Soc. Can., III, 29, 175-188.
4. Yishan L. in. 1979, Modified Yeast Sporulation Media. American Society of Brewing Chemists Inc. Vol. 37, 66-69.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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