Reference : 01-781 ***Scharlau Microbiology* - Technical data sheet**

Product :
UNIVERSAL BEER AGAR (UBA)

Specification

Base medium, to which beer may be added for the cultivation of microbial contaminants in the brewing industry

Formula * in g/L

Peptonized milk (Peptone)	15,000	Manganese sulfate	0,006
D (+) Glucose	16,100	Iron III sulfate	0,006
Supplement Tomato	12,200	Sodium chloride	0,006
Yeast Exttract	6,100	Agar	15,000
Dipotassium phosphate	0,310		
Monopotassium phosphate	0,310	Final pH at 25ºC 6,1± 0,2	
Magnesium sulfate	0,120		

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 65 g of powder in 750 ml of distilled water and bring to the boil constantly stirring until completely dissolved . Add 250 ml of beer and swirl gently to degas. Distribute into appropriate containers and sterilize in the autoclave at 121 ° C for 10 minutes.
NOTE: The medium can be made selective for detecting bacterial contaminants by adding 1mg/litre of cycloheximide to inhibit the growth of yeasts. If can also be made differential for acid producing colonies by adding 20 mg / liter of Bromcresol Green or 3 g / liter of gypsum powder allowing halos or zones of decolorisation to be seen around colonies .

Description

This medium, with the addition of the beer that contains alcohol and hops, creates a very favorable environment for the growth of contaminating microorganisms in beer.
Peptonised milk, yeast extract and tomato serum supply nitrogen, vitamins and growth factors. The carbon and energy source is supplied by the glucose and phosphate buffers the medium. The sodium chloride and other mineral salts maintain the osmotic balance. Beer increases the selective and stimulating action, since both alcohol and hops components eliminate most air pollutants, but allow growth of organisms adapted to beer.
This medium supports the growth of Lactobacillus, Pediococcus, Acetobacter, Zymomonas and the wort and beers' own yeasts including wild strains and contaminants, but it is not recommended for the cultivation of *Megasphaera Pectinatus.*

Technique

Use samples to inoculate the medium by direct surface plating or pour plate techniques and incubate aerobically for the presence of Acetobacter or in a CO2-enriched atmosphere or anaerobic conditions to allow the growth of Lactobacillus , Pediococcus and Zymomonas sp . We recommend incubation at 28-30 ° C for 3-5 days and daily examinations.

Quality control

Incubation temperature: 28-30ºC **Incubation time:** 3-5 dyas

Inoculum: 10-100 CFU . Spiral Plate Method

Microorganism	Growth	Remarks
Saccharomyces cerevisiae ATCC 9763	Productivity > 0.70	micro-aerophilic conditions
Lactobacillus fermentum ATCC 9338	Productivity > 0.70	micro-aerophilic conditions
Pediococcus acidilactici ATCC 8042	Productivity > 0.70	micro-aerophilic conditions
Acetobacter aceti ATCC 15973	Productivity > 0.70	aerobical conditions

References

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· TASKILA, S., M. TUOMOLA, J. KRONLÖF y P. NEUBAUER (2010) Comparison of enrichment media for routine detection of beer spoiling lactic acid bacteria and development of trouble-shooting medium for Lactobaciullus backi. J. Inst. Brew. 116(2):151-156
· VAN VUUREN, H.J., H.A. LOUW, M.A. LOOS y R. MEISEL (1977) Procedures involving lípido media for detection of bacterial contamination in breweries. Appl. Environ. Microbiol. 33(2):246-248.
· WOODWARD, J.D. (1978) Medium for Lactobacillus and Pediococcus. J. Inst. Brew. 84:293.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4ºC to 30ºC and <60% RH).

Packaging