

YSG Agar

Selective medium for detection of *Alicyclobacillus* in fruit juices and other similar beverages or food.

TYPICAL FORMULA	(g/l)
Yeast Extract	2.0
Glucose	1.0
Soluble Starch	2.0
Agar	15.0
Final pH 3.7 ± 0.2	

DESCRIPTION

YSG Agar is a selective medium used for the isolation and cultivation of *Alicyclobacillus* from fruit juices and other acidic food.

PRINCIPLE

Yeast extract provides amino acids, nitrogen, carbon, minerals and vitamins. Glucose is an energy source. Soluble starch is a protective agent capable to neutralize and absorb toxic metabolites produced by bacterial growth. Agar is the solidifying agent. The low pH of the medium and the high incubation temperature act as selective agents.

TECHNIQUE

1. For monitoring of raw materials, heat shock is recommended to initiate spores germination. Finished products are usually heated during processing, therefore heating is not necessary for their investigation.
2. In the case of low contamination levels an enrichment step is recommended.
3. Inoculate the plates by using the surface plating technique or membrane filter method.
4. Incubate at 45 ± 2°C for 3-5 days in aerobic atmosphere.

INTERPRETATION OF RESULTS

Observe for the growth of colonies.

STORAGE

10-25°C away from light, until the expiry date on the label. Eliminate if signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. International Federation of Fruit Juice Producers (IFU) – First standard IFU-method on the detection of *Alicyclobacillus* in fruit juices – IFU method No. 12 January 2004 / February 2006
2. Japan Fruit Juice Association (2007) The unified test method for thermo-acidophilic Bacilli.
3. Savas Bahceci K. and Acar J. (2007) Modelling the combine effects of pH, temperature and ascorbic acid concentration on the heat resistance of *Alicyclobacillus acidoterrestris*. International Journal of Food Microbiology 120:266-273
4. Witthuhn R.C., W. Duvenage, P.A. Gouws (2007) Evaluation of different growth media for the recovery of the species of *Alicyclobacillus*. Letters Appl. Microbiol. 45:224-229.



PRODUCT SPECIFICATIONS

NAME

YSG Agar

PRESENTATION

Ready to use plates (90 mm) containing 22 ± 1 ml of medium

STORAGE

10-25°C

PACKAGING

Ref.	Content	Packaging
10430	20 plates	<ul style="list-style-type: none"> • 10 plates in thermally soldered film • 2 x 10 plates in cardboard box

pH OF THE MEDIUM

3.7 ± 0.2

USE

YSG Agar is a selective medium used for the isolation and cultivation of *Alicyclobacillus* from fruit juices and other acidic food

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Light yellow, slightly opalescent

SHELF LIFE

6 months

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at $22 \pm 2^\circ\text{C}$, in aerobiosis
7 days at $35 \pm 2^\circ\text{C}$, in aerobiosis
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10^4 - 10^6 CFU
Incubation Conditions: 3-5 days at $45 \pm 2^\circ\text{C}$, in aerobiosis

Microorganism

Alicyclobacillus acidocalcaris

ATCC® 27009

Growth

Good

Alicyclobacillus acidoterrestris

DSM 2498










Good

Escherichia coli

ATCC® 25922

Inhibited

TABLE OF SYMBOLS

 LOT	Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
 REF	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	



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