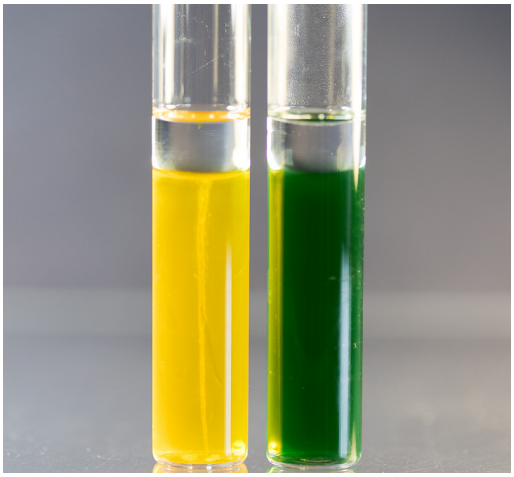
GLUCOSE OF MEDIUM

Semi-solid dehydrated culture media and ready-to-use test tubes
For the confirmation test of *Enterobacteriaceae*



On the left, a test tube inoculated with E.coli, on the right, a non-inoculated tube.

INTENDED USE

Semi-solid dehydrated culture media for the confirmation test of *Enterobacteriaceae* in food samples, feed and in samples of the food chain. Glucose OF Medium is indicated by ISO 21528: 2017 standards (part 1 and 2) for confirmation of Enterobacteriaceae after isolation in Violet Red Glucose Agar and subculture in Nutrient Agar.

TYPICAL FORMULA (G/L)*

Enzymatic Digest of Casein	2,00
Sodium Chloride	5,00
Glucose	10,00
Bibasic Potassium Phosphate	0,30
Bromothymol blue	0,08
Agar	3,00

* The culture medium can be adjusted to adapt its performance to specifications.

PREPARATION OF THE DEHYDRATED CULTURE MEDIA

Dissolve 20.4 g in 1 liter of cold purified water. Heat shaking frequently to completely dissolve the medium.. Dispense 10 mL into tubes. Sterilize by autoclaving at 121° C for 15 minutes. Allow the tubes to solidify vertically The medium may be stored for up to four weeks at 5 ±3°C. Before use, if necessary, heat the medium in boiling water or steam for 15 minutes to remove the oxygen present and then cool rapidly to the incubation temperature.

CHEMICAL AND PHYSICAL CHARACTERISTIC

Aspect of the test tube medium: green, clear.
pH: 6.8 ± 0.2

PRINCIPLE OF THE METHOD

The fermentation of glucose is indicated by the development of a yellow color, due to the color change of the bromothymol blue indicator.

METHOD

Subculture isolated colonies from Violet Red Glucose Agar plates on Nutrient Agar n°3 (REF 401814) plates. Stab colonies from the nutrient agar into tubes of Glucose OF medium.
Coat the tubes with a layer of at least 1 cm of sterile mineral oil. Incubate at 37°C for 22-26 h.

READING AND INTERPRETATION OF RESULTS

Consider positive for glucose fermentation the tubes which, after incubation, show the development of a yellow color.
The presence of a slight yellow color change only in the upper part of the medium must be considered as a negative result (absence of glucose fermentation).

QUALITY CONTROL

It is user's responsibility to carry out the quality control in accordance with the regulations in force and according to his own Laboratory experience. The following table shows some useful strains for quality control.

STRAINS		INCUBATION	RESULTS
E. coli	ATCC 25922	37°C x 24 h.	positive control.: growth with color change to yellow
P.aeruginosa	ATCC 27852	37°C x 24 h.	negative control.: absence of color change or slight color change only in the upper part of the medium

ATCC is the trade mark of the American Type Culture Collection

STORAGE

Dehydrated culture media: store at 10-30° C in the dark.
Ready-to-use test tubes: store in the dark at 2-8° C until the expiration date shown on the label.
In these conditions the product is valid until the expiration date indicated on the label. Do not use after this date. Discard the medium if there are signs of deterioration.

PRECAUTIONS

The preparation described here is not classified as dangerous according to current legislation.
As for all the dehydrated culture media, the manipulation of the Glucose OF medium must be carried out with adequate protection of the respiratory tract. Check the safety data sheet before use.

PRODUCTS

Description	Type	Ref. N°	Package
Glucose OF medium	Dehydrated culture medium Ready-to-use test tubes	4015252 551525	500 g (24,5 L) 20 x 10 mL

REFERENCES

- ISO 21528-1:2017 Microbiology of the food chain -- Horizontal methods for the detection and enumeration of *Enterobacteriaceae* -- Part 1: Detection *of Enterobacteriaceae*
- ISO 21528-2:2017 Microbiology of the food chain -- Horizontal methods for the detection and enumeration of Enterobacteriaceae -- Part 2: Colony-count technique
- ISO 11133:2014 Microbiology of food, animal feed and water -- Preparation, production, storage and performance testing of culture media

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