

Legionella CYE Agar Base

Basal medium for detection and enumeration of *Legionella* spp, according to ISO 11731 (all parts).

TYPICAL FORMULA	(g/l)
Yeast Extract	10.0
Activated Charcoal	2.0
Agar	12.0
Final pH 6.9 ± 0.4 at 25°C	

DESCRIPTION

Legionella CYE Agar Base is a medium used with supplements for confirmation of presumptive *Legionella* colonies from clinical specimens and environmental samples.

PRINCIPLE

Yeast extract provides amino acids, nitrogen, carbon, vitamins and minerals. Activated charcoal decomposes hydrogen peroxide, a metabolic product toxic to *Legionella* spp, and may also collect carbon dioxide and modify surface tension. Agar is the solidifying agent. This medium can be supplemented with one of the following:

- Legionella BCYE Growth Supplement (ref. 81056) to give Legionella BCYE Agar;
- Legionella BCYE Growth Supplement w/o L-Cysteine (ref. 81091) to prepare the medium as above but omitting L-cysteine.

PREPARATION

Suspend 2.4 g of powder in 90 ml of deionized or distilled sterile water. Heat to boiling until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of 1 vial (10 ml) of either Legionella BCYE Growth Supplement or Legionella BCYE Growth Supplement w/o L-Cysteine, as desired. Mix well. Dispense in petri dishes.

TECHNIQUE

Inoculate clinical specimens from swab by rolling it over the agar surface in order to obtain isolated colonies.

ISO 11731 recommends to subculture typical colonies from Legionella Agar (GVPC) plates (ref. 10128) onto plates of Legionella BCYE Agar and Legionella BCYE Agar without cysteine for confirmation of presumptive *Legionella* colonies.

Incubate plates at 36 ± 2°C for at least 2 days in humidified atmosphere (air with 2.5% CO₂ can be beneficial for the growth of some *Legionella* but is not essential).

INTERPRETATION OF RESULTS

Examine for growth and fluorescence under long-wave UV light.

Regard as *Legionella* those colonies which grow on Legionella BCYE Agar but fail to grow on the medium without cysteine.

Colonies of *Legionella* are often white-grey-blue-purple in colour, but can be brown, pink, lime-green or deep-red. They are smooth with an entire edge and exhibit a characteristic ground-glass appearance. Under UV light colonies usually exhibit brilliant blue-white fluorescence. Colonies of *L. pneumophila* appear dull-green often tinged with yellow.

STORAGE

10-30°C away from light, until the expiry date on the label or until 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 intended for *in vitro* diagnostic use only and must be used by properly trained operators.

DISPOSAL OF WASTE

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

REFERENCES

1. ISO 11731-2:2004. Water quality – Detection and enumeration of *Legionella*. Part 2: Direct membrane filtration method for waters with low bacterial count.
2. ISO 11731:1998. Water quality – Detection and enumeration of *Legionella*.
3. Edelstein P.H. (1981) Improved semiselective medium for the isolation of *Legionella pneumoniae* from contaminated clinical and environmental specimens. J. Clin. Microbiol. 14(3):298.



PRODUCT SPECIFICATIONS

NAME

Legionella CYE Agar Base

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGE

Ref.	Content	Packaging
610125	500 g	500 g of powder in plastic bottle
620125	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

6.9 ± 0.4

USE

Legionella CYE Agar Base is a medium used with supplements for confirmation of presumptive *Legionella* colonies from clinical specimens and environmental samples

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Dehydrated medium

Appearance: free-flowing, homogeneous

Colour: grey-black

Prepared medium

Appearance: opaque

Colour: black

SHELF LIFE











4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10⁴-10⁶ CFU
Incubation conditions: 2-5 days at 36 ± 2°C

Microorganism		Growth on	
		Legionella BCYE Agar	Legionella BCYE Agar w/o Cysteine
<i>Legionella pneumophila</i>	WDCM 00107	Good	Inhibited
<i>Legionella bozemanii</i>	NCTC 11368	Good	Inhibited
<i>Staphylococcus aureus</i>	ATCC® 25923	Good	Good
<i>Escherichia coli</i>	ATCC® 25922	Good	Good

TABLE OF SYMBOLS

 Batch code	 <i>In vitro</i> Diagnostic Medical Device	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instruction for use	 Keep away from heat sources



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