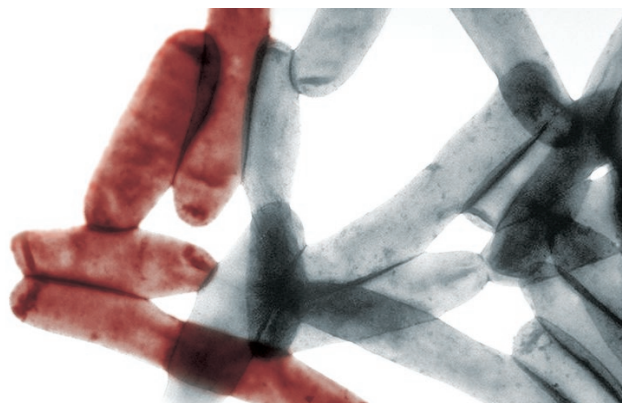




Detection and enumeration of *Legionella* in water according to ISO1173

Legionella is a Gram negative rod, 0.3 to 0.9 µm wide by 1.5 to 5 µm long. Most species are motile by one or more polar flagella. *Legionella spp.* can be found in environmental water, rivers, lakes, sludge, etc. From these places *Legionella* may then colonize industrial and drinking water systems, where they find conditions as temperature and nutrients necessary for their development. *Legionella spp.* grow in culture media that contain L-cysteine and iron, essential for their development.

The ISO standard describes the method for the detection and enumeration of *Legionella* in water.



Main Advantages

- Ready-to-use plates avoiding complex preparation.
- Optimal inhibition of *Pseudomonas*.
- Reproducible recoveries from batch to batch.
- Certificate of analysis according to ISO 11133.

The media described in these ISO standards are: GVPC, BCYE with cysteine and BCYE without cysteine.

Legionella Selective Agar (ISO 11731) (GVPC Agar) Code 455378

Composition (g/l):

ACES	10.0
Charcoal Activated	2.0
Cycloheximide	0.08
L-Cysteine Chloride	0.4
Yeast Extract	10.0
Glycine	3.0
Ferric Pyrophosphate	0.25
α-Ketoglutarate	1.0
Polymixin B Sulfate	80000 UI
Potassium Hydroxide	2.8
Vancomycin	0.001
Agar	16.0
pH: 6.8±0.2	

BCYEx Agar (ISO 11731) Code 456266

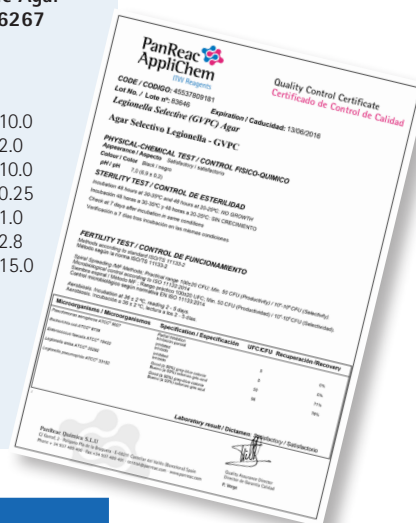
Composition (g/l):

ACES	10.0
Charcoal Activated	2.0
L-Cysteine Chloride	0.4
Yeast Extract	10.0
Ferric Pyrophosphate	0.25
α-Ketoglutarate	1.0
Potassium Hydroxide	2.8
Agar	15.0
pH: 6.8±0.2	

BCYE without Cysteine Agar (ISO 11731) Code 456267

Composition (g/l):

ACES	10.0
Charcoal Activated	2.0
Yeast Extract	10.0
Ferric Pyrophosphate	0.25
α-Ketoglutarate	1.0
Potassium Hydroxide	2.8
Agar	15.0
pH: 6.8±0.2	



Description	Code	Package
Legionella Selective Agar (ISO 11731)	455378.0922	20 plates of 90 mm
	455378.09181	120 plates of 90 mm
BCYE without Cysteine Agar (ISO 11731)	456267.0922	20 plates of 90 mm
BCYEx Agar (ISO 11731)	456266.0922	20 plates of 90 mm

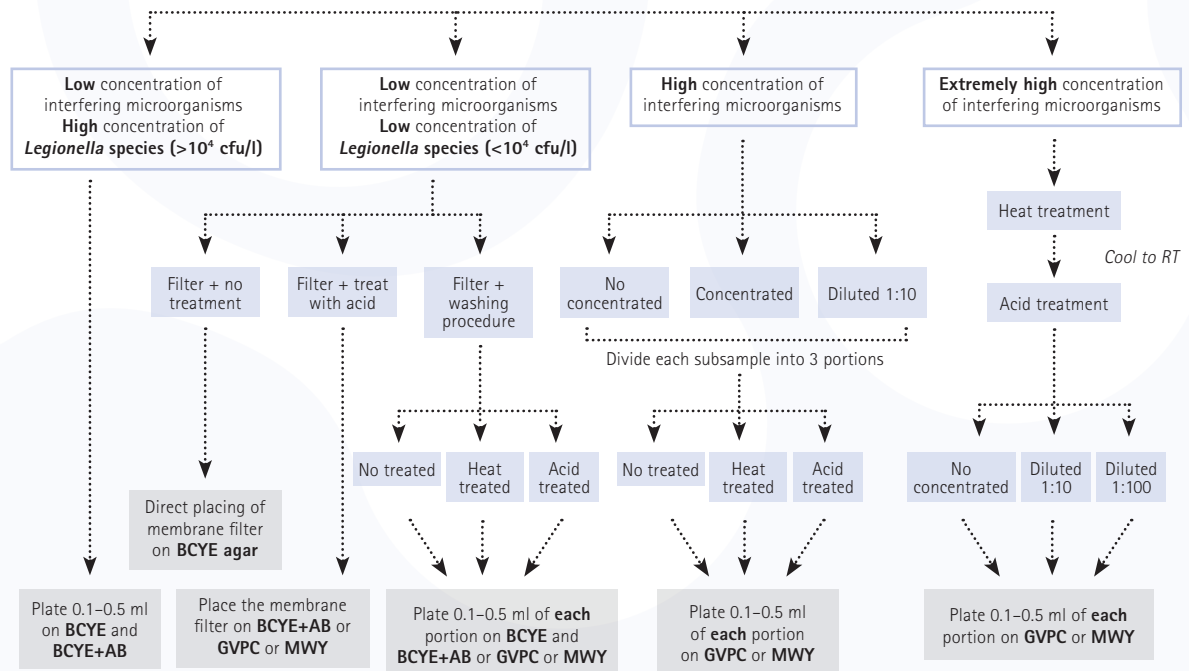


Procedure ISO 11731:2017

Liquid Sample Preparation

Culture

1st day



11th day

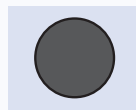
Incubation

Incubation at 36 °C ± 2°C for 7 to 10 days. Check colonies on day 2, 3, 4, 5 and final incubation

13th day

Confirmation and results

Uncharacteristic growth
Not detected
Legionella spp /x ml



Characteristic growth
Presumed
Legionella spp /x ml



Confirmation of *Legionella spp*

Re-inoculation and Incubation
at 36 ± 2 °C for 2 days

Growth + on BCYE_x
Growth - on BCYE w/o cys
(or Blood Agar or Nutrient Agar or TSA)

Other growth combinations

Confirmations at
the level of species



Presence (CFU)
Legionella spp /x ml

Not detected
Legionella spp /x ml

