

For the selective isolation *Yersinia* spp. from foods and clinical specimens. According to ISO 10273 standard.

**Formula in g/L**

Enzymatic digest of gealtin.....	17,00	Mannitol .....	20,00
Yeast extract.....	2,00	Sodium pyruvate .....	2,00
Sodium chloride .....	1,00	Sodium desoxycholate.....	0,50
Neutral red .....	0,03	Magnesium sulphate 7-hydrate .....	0,01
Crystal violet.....	0,001	Agar .....	12,50
Enzymatic digest of plant and animal tissues.....	3,00		

Final pH at 25°C: 7,4 ± 0,2

**Principle:**

*Yersinia* Selective LAB-AGAR™ is a selective and differential for *Yersinia* species, especially *Y. enterocolitica*. The mannitol is the fermentable carbohydrate. Mannitol fermentation in the presence of the neutral red produces a characteristic “bull’s eye” colony, colourless with a red center. Enzymatic digest of gealtin and peptone mixture (casein and meat) provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source vitamins, particularly of the B-group. Sodium pyruvate is added as a source of energy as a protective substance in order to overcome oxygen toxicity biologically produced by organisms. Selective inhibition of Gram-positive and Gram-negative bacteria is obtained through crystal violet, sodium desoxycholate and irgasan. Cefsulodin and novobiocin improve the inhibition of normal enteric bacteria. Sodium chloride supplies essential electrolytes for transport and maintains osmotic balance. Magnesium sulphate is a magnesium ion required in a large variation of enzymatic reactions, including DNA replication. Neutral red is a pH indicator.

**Preparation:** suspend 29 grams of the medium in 500 ml of distilled water. Mix well and dissolve by heating with frequent agitation until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C and add one vial of *Yersinia* CIN Selective Supplement (ref. SL 0044). Mix well and pour into Petri dishes.

**Procedure:**

- ★ ISO 10273 norm recommends the use of this medium for the detection of presumptive pathogenic *Y. enterocolitica*, after incubation of the enrichment media PSB, at a temperature of 22°C to 25°C for 48 to 72 hours or 5 days without agitation, and ITC medium at a temperature of 25°C for 48 hours
- ★ Inoculate plates by streaking
- ★ Incubate at 30°C for 24-48 hours

**Result:**

- ★ Typical colonies of *Yersinia enterocolitica*, will appear colourless, with dark red centers, like “bull’s eye” surrounded by transparent border

**Storage / Shelf life**

- ★ Once opened keep powdered medium closed to avoid hydration at 2 - 30°C
- ★ The expiration date is indicated on the label.

**Microbiological test**

The following results were obtained in the performance of the medium from type cultures with Yersinia CIN Selective Supplement added, after incubation at a temperature of 25±1°C and observed after 24-48 hours

Microorganism	Growth
Yersinia enterocolitica ATCC 27729	Good
Escherichia coli ATCC 25922	Inhibited

Packaging: 500 g

Supplement: Yersinia CIN Selective Supplement 10 vials. 1 vial / 500 ml    Ref. SL 0044