

Salmonella Differential Broth

Selective liquid medium for primary screening of *Salmonella* spp in clinical specimens.

TYPICAL FORMULA	(g/l)
Proteose Peptone	2.0
Yeast Extract	3.0
L-Lysine	5.0
Xylose	3.75
Lactose	7.5
Sucrose	7.5
Ferric Ammonium Citrate	0.2
Sodium Thiosulfate	0.2
Phenol Red	0.08
Sodium Dihydrogen Phosphate	0.3
Disodium Hydrogen Phosphate	1.3
Tergitol 4	4.6 ml
Final pH 7.4 ± 0.2	

DESCRIPTION

Salmonella Differential Broth is a liquid medium used for the detection of *Salmonella* spp from faeces and other materials.

PRINCIPLE

Proteose peptone provides carbon, nitrogen, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. L-Lysine is an amino acid substrate for the enzyme decarboxylase. Xylose, lactose and sucrose are the fermentable carbohydrates. Ferric ammonium citrate and sodium thiosulfate are the indicators of hydrogen sulfide production under alkaline conditions. Phenol red is the pH indicator. Phosphates act as buffer. Tergitol 4 is the selective agent inhibiting all Gram-positive bacteria and moulds as well as numerous Gram-negative bacteria including *Proteus*, *Providencia* and *Pseudomonas* spp.

TECHNIQUE

Process the specimen as appropriate. Inoculate Salmonella Differential Broth. Incubate at 35 ± 2°C for 18-24 h.

Note: Avoid delay between sample collection and inoculation to not affect the test result.

INTERPRETATION OF RESULTS

Development of a red colour indicates the presence of *Salmonella* spp that may be made even more evident by the formation of a black precipitate. Non-*Salmonella* species are either inhibited or produce a colour change of the medium to yellow.

Subculture to a selective agar plate such as XLD Agar (ref. 10056) for isolation and further analysis.

STORAGE

10-25°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 designed for *in vitro* diagnostic use and must be used only 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. Miller, R.G., et al. (1992) Xylose-Lysine-Tergitol 4: An improved selective agar medium for the isolation of Salmonella. Poultry Science; 71:398.
2. Miller, R.G., et al. (1991) Xylose-Lysine-Tergitol 4: An improved selective agar medium for the isolation of Salmonella. Poultry Science; 70:2429-2432.
3. Rollender W. et al. (1969) Comparison of xylose lysine deoxycholate agar and MacConkey Agar for the isolation of Salmonella and Shigella from clinical specimens. Am J Clin Pathol; 51/2:284-386



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PRODUCT SPECIFICATIONS

NAME

Salmonella Differential Broth

PRESENTATION

Glass tubes containing 10 ml of medium

STORAGE

10-25°C

PACKAGING

Ref.	Content	Packaging
24135	20 x 10 ml tubes	20 tubes in cardboard box

pH OF THE MEDIUM

7.4 ± 0.2

USE

Salmonella Differential Broth is a liquid medium used for the detection of *Salmonella* spp from clinical specimens and other samples

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Clear, light red

SHELF LIFE

2 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 22 ± 2°C, in aerobiosis
7 days at 35 ± 2°C, in aerobiosis
- Microbiological control
Inoculum for productivity: ≤100 CFU
Inoculum for selectivity: >10³ CFU
Incubation Conditions: 35 ± 2°C for 18-24 h

Microorganism		Growth	Colour	Blackening
<i>Salmonella</i> Typhimurium	ATCC® 14028	Good	Red	Positive
<i>Escherichia coli</i>	ATCC® 25922	Partially inhibited	Yellow	Negative
<i>Proteus mirabilis</i>	ATCC® 12453	Inhibited	---	---
<i>Staphylococcus aureus</i>	ATCC® 25923	Inhibited	---	---

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	 Caution, consult instruction for use	 Do not reuse



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