REF 42 091

08526 **E** - en - 2012/03 EN

Rappaport broth (RAPPAPORT-T)

IVD

Enrichment broth for *Salmonella*

SUMMARY AND EXPLANATION

This medium is used for the enrichment of *Salmonella* in stool samples (1).

PRINCIPLE

Its composition favors the growth of *Salmonella* in a polymicrobial flora.
After enrichment, Rappaport broth must be subcultured on media for the detection of *Salmonella*.

CONTENT OF THE KIT

	Ready-to-use medium
REF 42 091	20 tubes (9 ml)

COMPOSITION

Theoretical formula.

This medium can be adjusted and/or supplemented according to the performance criteria required:

Casein peptone (bovine)	4.3 g
Yeast extract	1.6 g
Sodium chloride	7 g
Monopotassium phosphate	0.78 g
Disodium phosphate	0.26 g
Magnesium chloride	30 g
Malachite green	0.1 g
Purified water	1 l

pH 5.5

REAGENTS AND MATERIAL REQUIRED BUT NOT PROVIDED

Reagents:

- SS agar (Ref. 43 091 or 51 043).
- Hektoen agar (Ref. 43 111 or 51 050).
- SMID agar (Ref. 43 291).
- chromID™ Salmonella Agar (Ref. 43621 – 43629).
- LyfoCults® Plus *Salmonella typhimurium* (Ref. 301526).
- LyfoCults® Plus *Escherichia coli* (Ref. 301131).

Material:

- Bacteriology incubator.

WARNINGS AND PRECAUTIONS

- **For *in vitro* diagnostic use only.**
- **For professional use only.**
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious, and handled observing the usual safety precautions (do not ingest or inhale).
- All specimens, microbial cultures and inoculated products should be considered infectious and handled appropriately. Aseptic technique and usual precautions for handling the bacterial group studied should be observed throughout this procedure. Refer to "CLSI® M29-A, Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline – Current Revision". For additional handling precautions, refer to "Biosafety in Microbiological and Biomedical Laboratories, CDC/NIH, Latest Edition", or to the regulations currently in use in each country.
- Culture media should not be used as manufacturing material or components.
- Do not use reagents after the expiry date.
- Do not use tubes which show signs of contamination.
- Before use, check that the tube cap is intact.
- The performance data presented were obtained using the procedure indicated in this package insert. Any change or modification in the procedure may affect the results.

STORAGE CONDITIONS

Store the tubes in their box at 2-8°C until the expiry date.

SPECIMENS

The medium is inoculated directly using a suspension of stools (in sterile physiological saline) or liquid stools.
Good laboratory practices for collection and transport should be respected.

INSTRUCTIONS FOR USE

1. **Allow tubes to come to room temperature.**
2. Inoculate 0.1 ml of inoculum.
3. Incubate the tubes at 37°C for 24 hours. The user is responsible for choosing the appropriate temperature for the intended use, in accordance with current standards.
4. Subculture 10 µl onto a selective isolation medium for the detection of *Salmonella* (SS, Hektoen, SMID agar, etc.).
5. Incubate the isolation medium at 37°C for 24 hours.

READING AND INTERPRETATION

Refer to the package inserts for the isolation media used.

QUALITY CONTROL

Protocol:

The nutrient capacity of the medium can be tested using the following strains:

- *Salmonella typhimurium* ATCC® 14028™
- *Escherichia coli* ATCC® 25922™

Range of expected results:

Strain	Results at 33-37°C after subculture on SS agar
Salmonella typhimurium ATCC® 14028™	Growth after 24 hours of enrichment
Escherichia coli ATCC® 25922™	Inhibition after 24 hours of enrichment

Note:

It is the responsibility of the user to perform Quality Control taking into consideration the intended use of the medium, and in accordance with any local applicable regulations (frequency, number of strains, incubation temperature, etc.).

LIMITATIONS OF THE METHOD

Growth depends on the requirements of each individual microorganism. It is therefore possible that certain strains which have specific requirements may not develop, notably *Salmonella typhi*.

PERFORMANCE

Performance was evaluated at 37°C using 33 bacterial strains (including 13 *Salmonella* strains).

Compatibility with media for fecal culture:

After enrichment in Rappaport broth and subculture on SS, Hektoen and SMID agars, the 13 strains of *Salmonella* grew and produced characteristic colonies.

Selectivity:

The growth of the 20 strains other than *Salmonella* depends on the selectivity of the subculture medium.

WASTE DISPOSAL

Unused reagents may be considered as non hazardous waste and disposed of accordingly.
Dispose of used reagents as well as any other contaminated disposable materials following procedures for infectious or potentially infectious products.
It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

LITERATURE REFERENCES

1. RAPPAPORT F., KONFORTI N., NAVON N. - A new enrichment medium for certain Salmonella - J. Clin. Path., 1956, vol. 9, p. 261-266.
2. EWING N.H. – Edwards and Ewing's identification of enterobacteriaceae – 4th ed. – 1986, Elsevier Science Publishing – ISBN 0-444-00981-7.
3. VAN SCHOTHORST M., RENAUD A.M. - Dynamics of *Salmonella* isolation with modified Rappaport's medium (RIO) - *J. Appl. Bacteriol*., 1983, vol. 54, p. 209-215.

INDEX OF SYMBOLS

Symbol	Meaning
REF	GB: Catalogue number US: Catalog number
IVD	*In Vitro* Diagnostic Medical Device
	Manufacturer
	Temperature limitation
	Use by
LOT	Batch code
	Consult Instructions for Use
	Contains sufficient for <n> tests

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