Technical Data Sheet

Rappaport Vassiliadis Medium

Ordering number: 1.46181.0020 / 1.46181.0100

For the selective enrichment of Salmonella in pharmaceutical products.

General

The culture medium complies according to the recommendations of the European and United States Pharmacopoeia (EP, 2.6.13. and USP, 62).

Mode of Action

A modification of the originally described Rappaport medium, using soya peptone instead of tryptone (peptone from casein) was reported to improve recovery rates of Salmonella (Van Schothorst and Renaud, 1983 and Van Schothorst et al., 1987). This is in use as Rappaport-Vassiliadis soya peptone (RVS) broth.

The efficiency of RVS broth for salmonella is based on the following: (a) the ability of Salmonella *spp.* to multiply at relatively high osmotic pressures at relatively low pH values, at a high temperature and with modest nutritional requirements; and (b) the suppression of the toxic effect of malachite green towards Salmonellae by the presence of magnesium chloride.

Typical Composition

Soy Peptone	4.5 g/l
$MgCl_2 \cdot 6\ H_2O$	29 g/l
NaCl	8 g/l
K_2HPO_4	0.4 g/l
KH_2PO_4	0.6 g/l
Malachite green	36 mg/l
pH at 25°C	5.0 – 5.4

The appearance of the medium is clear and blue.

Application and Interpretation

According to the recommendations of the harmonized version of EP and USP 0.1 ml of the non-selective enrichment in Tryptic Soy Broth (e.g. article number 146458) is transferred into 10 ml of Rappaport Vassiliadis Medium and incubated at 30 to 35 °C for 18 to 48 hours.

According to the recommendations of the harmonized version of USP 38 a subculture is prepared on XLD Agar after selective enrichment in Rappaport Vassiliadis Medium.

For further identification the chromogenic Salmonella elective agar according to Rambach is available. In addition we offer BPLS-Agar, LEIFSON Agar mod. and Salmonella Shigella (SS) Agar as selective agars for the further identification of Salmonella.

The biochemical reactions for identification of Salmonella may be prepared using Tryptophan Broth (article number 146731) for detection of indole formation.

The identification of *Salmonella* may be performed also by serological tests.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +2 °C to +25 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Function	Incubation	Control Strains	Method of Control	Criteria (% Recovery)	Expected Results
Productivity	16-18 h at 30-35 °C	Salmonella typhimurium ATCC 14028	Qualitative	good growth	pronounced turbidity
		Salmonella abony ATCC 6017			
Selectivity	24-28 h at 30-35 °C	Staphylococcus aureus ATCC 6538		no growth	no turbidity

Please refer to the actual batch related Certificate of Analysis.

Literature

EU GMP Medicinal Products for Human and Veterinary use (2008): Annex1 Manufacture of Sterile Medicinal Products.

European Pharmacopoeia 8.0 (2014): 2.6.13. Microbial examination of non-sterile products: Test for specified microorganisms.

Guidance for Industry (2004): Sterile Drug Products Produced by Aseptic Processing - Current Good Manufacturing Practice.

PDA Technical Report No. 13 (2014 Revised): Fundamentals of an Environmental Monitoring Program.

United States Pharmacopoeia 38 NF 33 (2015): <62> Microbiological examination of non-sterile products: Tests for specified microorganisms.

Vassiliadis, P., Kalapothaki, V. Trichopoulos, D., Marromati, C. M. and Serie, C. (1981): Improved isolation of Salmonella from naturally contaminated meat products by using Rappaport-Vassiliadis-(RV)-enrichment broth. Appl. Environm. Microbiol. 42: 615-618.

Ordering Information

Product	Cat. No.	Pack size	Other packaging Size
Rappaport Vassiliadis Medium	1.46181.0020	20 x 10 ml tube	100 x 10 ml tube
Tryptic Soy Broth	1.46458.0010	10 x 100 ml bottle	
Xylose Lysine Deoxycholate (XLD) Agar - LI	1.46073.0020	20 x 90 mm plate	120 x 90 mm plate
Rambach Agar (Salmonella-elective)	1.46719.0020	20 x 90 mm plate	100 x 90 mm plate
Brilliant Green, Phenol Red, Lactose, Sucrose (BPLS) Agar - LI	1.46046.0020	20 x 90 mm plate	
LEIFSON Agar	1028960500	500g	
Salmonella Shigella (SS) Agar	1.07667.0500	500 g	
Tryptophan Broth	1.46731.0020	20 x 10 ml tube	

Merck KGaA, 64271 Darmstadt, Germany
Fax: +49 (0) 61 51 / 72-60 80
mibio@merckgroup.com
www.merckmillipore.com/biomonitoring

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