

**TEST REPORT****BACTERIOLOGICAL INTERLABORATORY COMPARISON  
STUDY VIII (2004) ON THE DETECTION OF *SALMONELLA* spp.  
ORGANISED BY CRL-*SALMONELLA***

Laboratory code	
Laboratory name	
Address	
Country	
Date of arrival of the parcels	..... - ..... - 2004
Start time of storage at - 20°C	Date:..... Time:.....
Parcels damaged?	YES                      NO
Starting date testing	..... - ..... - 2004

Is your laboratory accredited or certified for the detection of <i>Salmonella</i> . If yes, according to which system ? If no, are you planning to be accredited or certified in the near future ?	
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**PRE-ENRICHMENT – Buffered Peptone Water (BPW) (I)****Medium information BPW**

What did you use to prepare the BPW?

Individual ingredients

Dehydrated medium

Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of BPW**

Name

Code number

Batch number

Expire date

**Specific data of composition of BPW medium. What is the concentration of the following compounds in 1000 ml water:**

Enzymatic digest of casein

Sodium chloride

Disodium hydrogen phosphate dodecahydrate

Potassium dihydrogen phosphate

**Preparation of BPW**

Date of preparation

..... - ..... - 2004

pH after preparation

....., measured at ..... °C

pH at the day of use

....., measured at ..... °C

Did you perform quality control of BPW?

yes

no

**PRE-ENRICHMENT – Buffered Peptone Water (BPW) (II)****Prewarming time and temperature of the BPW**

At the start	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for dissolving the capsules**

At the start	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end	time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for pre-enrichment: ( 4 ± ½ ) hrs**

At the start	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for pre-enrichment: ( 18 ± 2 ) hrs**

At the start	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**SELECTIVE ENRICHMENT - Modified Semi solid Rappaport Vassiliadis medium (MSRV) (I)**

**Medium information MSRV**

What did you use to prepare the MSRV?

Individual ingredients

Dehydrated medium

Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of MSRV**

Name

Code number

Batch number

Expire date

**Specific data of composition of MSRV medium. What is the concentration of the following compounds in 1000 ml water:**

Tryptose

Casein hydrolysate

Sodium chloride

Monopotassium dihydrogen phosphate

Magnesium chloride (anhydrous)

Malachite green oxalate

Agar

Novobiocin

**Preparation of MSRV**

Date of preparation

..... - ..... - 2004

pH after preparation

....., measured at ..... °C

pH at the day of use

....., measured at ..... °C

Did you perform quality control of MSRV?

yes

no

<b>SELECTIVE ENRICHMENT - Modified Semi solid Rappaport Vassiliadis medium (MSRV) (II)</b>
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<b>Incubation time and temperature for selective enrichment after ( 4 ± ½ ) hrs incubation of BPW</b>
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At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

<b>Incubation time and temperature for selective enrichment after ( 18 ± 2 ) hrs incubation of BPW</b>
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At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**OWN SELECTIVE ENRICHMENT - Selective medium, routinely used in your laboratory (I)**

**If you use more selective media, please write these on an annex.**

Medium:

**Medium information**

What did you use to prepare the medium?

Individual ingredients

Dehydrated medium

Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of the medium**

Name

Code number

Batch number

Expire date

**Specific data of composition of the medium. What is the concentration of the compounds in 1000 ml water:**


**Preparation of the medium**

Date of preparation

..... - ..... - 2004

pH after preparation

....., measured at ..... °C

pH at the day of use

....., measured at ..... °C

Did you perform quality control of the medium?

yes

no

**OWN SELECTIVE ENRICHMENT - Selective medium, routinely used in your laboratory (II)**
**Further details concerning the medium**

Volume of the medium per jar/tube in ml	
Inoculation volume of BPW	
Prescribed incubation temperature in °C	

**Incubation of BPW**

Did you perform the selective enrichment of your own medium after: (4 ± ½) h incubation of BPW ?	YES / NO
Did you perform the selective enrichment of your own medium after: (18 ± 2) h incubation of BPW ?	YES / NO

**Incubation time and temperature for own selective enrichment medium**

At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**FIRST AND SECOND ISOLATION - Xylose Lysine Desoxycholate medium (XLD) (I)****Medium information XLD**

What did you use to prepare the XLD ?

Individual ingredients

Dehydrated medium

Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of XLD**

Name

Code number

Batch number

Expire date

**Specific data of composition of XLD medium. What is the concentration of the following compounds in 1000 ml water:**

Xylose

L-lysine

Lactose

Sucrose

Sodium chloride

Yeast extract

Phenol red

Agar

Sodium desoxycholate

Sodium thiosulphate

Ferric ammonium citrate

Saccharose

**Preparation of XLD**

Date of preparation

..... - ..... - 2004

pH after preparation

....., measured at ..... °C

pH at the day of use

....., measured at ..... °C

Did you perform quality control of XLD ?

yes

no



**FIRST AND SECOND ISOLATION - Xylose Lysine Desoxycholate medium (XLD) (II)****Size of petri dishes**

Size of petri dishes used	90 mm	100 mm	140 mm
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**Incubation time and temperature for isolation after ( 4 ± ½ ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for isolation after ( 18 ± 2 ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**FIRST AND SECOND ISOLATION – Second isolation medium for choice (I)**

**If you use more selective media, please write these on an annex.**

Name of the medium	
Prescribed incubation temperature in °C	

**Medium information of second isolation medium**

What did you use to prepare the second isolation medium ?
Individual ingredients
Dehydrated medium
Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of second isolation medium**

Name	
Code number	
Batch number	
Expire date	

**Specific data of composition of second isolation medium. What is the concentration of the following compounds in 1000 ml water:**


**Preparation of second isolation medium**

Date of preparation	..... - ..... – 2004
pH after preparation	....., measured at ..... °C
pH at the day of use	....., measured at ..... °C
Did you perform quality control ?	yes                  no

**FIRST AND SECOND ISOLATION - Second isolation medium for choice (II)****Size of petri dishes**

Size of petri dishes used	90 mm	100 mm	140 mm
---------------------------	-------	--------	--------

**Incubation time and temperature for isolation after ( 4 ± ½ ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for isolation after ( 18 ± 2 ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... - 2004 time: ..... h ..... min temperature incubator: ..... °C

**FIRST AND SECOND ISOLATION – Own isolation medium (I)**

**If you use more selective media, please write these on an annex.**

Name of the medium	
Prescribed incubation temperature in °C	

**Medium information of own isolation medium**

What did you use to prepare the second isolation medium ?
Individual ingredients
Dehydrated medium
Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of own isopation medium**

Name	
Code number	
Batch number	
Expire date	

**Specific data of composition of own isolation medium. What is the concentration of the following compounds in 1000 ml water:**


**Preparation of own isolation medium**

Date of preparation	..... - ..... – 2004
pH after preparation	....., measured at ..... °C
pH at the day of use	....., measured at ..... °C
Did you perfrom quality control ?	yes                  no

**FIRST AND SECOND ISOLATION – Own isolation medium (II)****Size of petri dishes**

Size of petri dishes used	90 mm	100 mm	140 mm
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**Incubation time and temperature for isolation after ( 4 ± ½ ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C

**Incubation time and temperature for isolation after ( 18 ± 2 ) hrs incubation of BPW**

At the start of the first period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the first period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the start of the second period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C
At the end of the second period	Date: ..... - ..... – 2004 time: ..... h ..... min temperature incubator: ..... °C

**CONFIRMATION – Nutrient agar (I)****Did you streak the colonies on Nutrient agar before starting confirmation?**

yes

no

If yes give further information on nutrient agar below

**Medium information Nutrient agar**

What did you use to prepare the nutrient agar ?

Individual ingredients

Dehydrated medium

Ready-to-use medium

**In case of dehydrated or ready-to-use medium , give information on the manufacturer of the nutrient agar**

Name

Code number

Batch number

Expire date

**Specific data of composition of nutrient agar medium. What is the concentration of the following compounds in 1000 ml water:**


**CONFIRMATION – Nutrient agar (II)****Preparation of the nutrient agar**

Date of preparation	..... - ..... – 2004
pH after preparation	....., measured at ..... °C
pH at the day of use	....., measured at ..... °C
Did you perform quality control of nutrient agar ?	yes                      no

**Size of petri dishes**

Size of petri dishes used	90 mm	100 mm	140 mm
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**BIOCHEMICAL CONFIRMATION**

**Manufacturer of the TSI agar**

Name	
Code number	
Batch number	
Expire date	
pH of the broth:.....	Measured at.....°C Date ..... - ..... 2004

**Manufacturer of the urea agar**

Name	
Code number	
Batch number	
Expire date	
pH of the broth:.....	Measured at.....°C Date ..... - ..... 2004

**Manufacturer of the l-Lysine decarboxylation medium**

Name	
Code number	
Batch number	
Expire date	
pH of the broth:.....	Measured at.....°C Date ..... - ..... 2004

**Manufacturer of other confirmation tests - .....**

Name	
Code number	
Batch number	
Expire date	
pH of the broth:.....	Measured at.....°C Date ..... - ..... 2004



**DETECTION BY PCR****General questions**

Is the PCR used commercially available	Yes No
If yes, name of PCR, manufacturer and batch used in the study:	
Is the PCR validated	Yes No
How much samples did you test for <i>Salmonella</i> using this PCR in 2003 ?	
At what moment did you start with the extraction/detection?	before or after incubation of BPW
Volume of pre-enrichment used for extraction	
Volume of DNA-sample obtained from extraction	
Volume of DNA-sample added to PCR-mixture	

**Composition of PCR-mixture**

Compound	Volume per sample	Manufacturer and batch of specific compound

Name of thermocycler	
Write down the cycles	
What kind of detection system is used	

Table 1: Results of isolation using MSR V (dish numbers 1-25)  
after (4 ± ½) hrs incubation of BPW

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

Col<sup>a</sup> = number of colonies used for confirmation; Sal<sup>b</sup> = number of colonies confirmed as Salmonella

Table 1 (continued): Results of isolation using MSR/V (dish numbers N1-N20)  
after (4 ± ½) hrs incubation of BPW

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
N1												
N2												
N3												
N4												
N5												
N6												
N7												
N8												
N9												
N10												
N11												
N12												
N13												
N14												
N15												
N16												
N17												
N18												
N19												
N20												

Col<sup>a</sup> = number of colonies used for confirmation

Sal<sup>b</sup> = number of colonies confirmed as *Salmonella*

Table 1 (continued): Results of isolation using MSR/V (dish numbers C1-C12)  
after (4 ± ½) hrs incubation of BPW

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
C1												
C2												
C3												
C4												
C5												
C6												
C7												
C8												
C9												
C10												
C11												
C12												

*Col<sup>a</sup>* = number of colonies used for confirmation

*Sal<sup>b</sup>* = number of colonies confirmed as *Salmonella*

Table 2: Results of isolation using MSR V (dish numbers 1-25)  
after (18 ± 2 ) hrs incubation of BPW

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

Col<sup>a</sup> = number of colonies used for confirmation; Sal<sup>b</sup> = number of colonies confirmed as Salmonella

Table 2 (continued): Results of isolation using MSRV (dish numbers N1-N20)  
**after (18 ± 2 ) hrs incubation of BPW**

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
N1												
N2												
N3												
N4												
N5												
N6												
N7												
N8												
N9												
N10												
N11												
N12												
N13												
N14												
N15												
N16												
N17												
N18												
N19												
N20												

Col<sup>a</sup> = number of colonies used for confirmation

Sal<sup>b</sup> = number of colonies confirmed as *Salmonella*

Table 2 (continued): Results of isolation using MSRV (dish numbers C1-C12)  
after (18 ± 2 ) hrs incubation of BPW

sample no.	MSRV 24 hours						MSRV 48 hours					
	XLD		Second isolation medium for choice				XLD		Second isolation medium for choice			
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
C1												
C2												
C3												
C4												
C5												
C6												
C7												
C8												
C9												
C10												
C11												
C12												

*Col<sup>a</sup>* = number of colonies used for confirmation

*Sal<sup>b</sup>* = number of colonies confirmed as *Salmonella*

Table 3: Results of isolation using own enrichment (dish numbers 1-25)

sample no.	Own enrichment 24 hours						Own enrichment 48 hours					
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

*Col<sup>a</sup>* = number of colonies used for confirmation

*Sal<sup>b</sup>* = number of colonies confirmed as *Salmonella*



Table 3 (continued): Results of isolation using own enrichment (dish numbers N1-N20)

sample no.	Own enrichment 24 hours						Own enrichment 48 hours					
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
N1												
N2												
N3												
N4												
N5												
N6												
N7												
N8												
N9												
N10												
N11												
N12												
N13												
N14												
N15												
N16												
N17												
N18												
N19												
N20												

*Col<sup>a</sup>* = number of colonies used for confirmation

*Sal<sup>b</sup>* = number of colonies confirmed as *Salmonella*

Table 3 (continued): Results of isolation using own enrichment (dish numbers C1-C12)

sample no.	Own enrichment 24 hours						Own enrichment 48 hours					
	Col <sup>a</sup>	Sal <sup>b</sup>	Col	Sal	Col	Sal	Col	Sal	Col	Sal	Col	Sal
C1												
C2												
C3												
C4												
C5												
C6												
C7												
C8												
C9												
C10												
C11												
C12												

*Col<sup>a</sup>* = number of colonies used for confirmation

*Sal<sup>b</sup>* = number of colonies confirmed as *Salmonella*

Table 4: Results of detection using PCR (dish numbers 1-25)

sample no.	PCR + or -			
		no.		no.
1		N1		C1
2		N2		C2
3		N3		C3
4		N4		C4
5		N5		C5
6		N6		C6
7		N7		C7
8		N8		C8
9		N9		C9
10		N10		C10
11		N11		C11
12		N12		C12
13		N13		
14		N14		
15		N15		
16		N16		
17		N17		
18		N18		
19		N19		
20		N20		
21				
22				
23				
24				
25				

Comment(s) on operational details that might influence the test results:

Name of person (s) carrying out the eighth bacteriological collaborative study (2004)	
Date and signature	

Name of person in charge	
Date and signature	