

## 9812 ANSR for *Salmonella* Enrichment Broth 2

### Intended Use

ANSR for *Salmonella* Enrichment Broth 2 is used in the Neogen ANSR for *Salmonella* test method for the presumptive identification of *Salmonella* spp. from raw meat, poultry carcass rinses, raw leafy greens and flours.

### Product Summary and Explanation

Salmonellosis continues to be an important public health problem. Infection with non-typhi *Salmonella* spp. often causes mild, self-limiting illness.<sup>1</sup> The illness results from consumption of raw, undercooked, or improperly processed foods contaminated with *Salmonella*. Many of these cases of *Salmonella* related gastroenteritis are due to improper handling of poultry products.

### Principles of the Procedure

The ANSR for *Salmonella* method provides for rapid and accurate detection of *Salmonella* spp. in a wide variety of foods and environmental samples. Serovars belonging to both *Salmonella enterica* and *Salmonella bongori* can be detected with the ANSR method.<sup>2,3</sup> Edel and Kamelmacher<sup>1</sup> found that food preservation techniques involving heat, desiccation, preservatives, high osmotic pressure, or pH changes cause sublethal injury to *Salmonella* spp. Enrichment in ANSR for *Salmonella* Enrichment Broth 2 allows for repair of cell damage and facilitates the recovery of *Salmonella* spp. when in the presence of higher-level competitor matrices such as raw meat and poultry carcass rinses.

### Precautions

1. For laboratory use.
2. **IRRITANT.** Irritating to eyes, respiratory system, and skin.

### Directions

Preparation directions are dependent upon the type of sample tested. Refer to the ANSR for *Salmonella* test system package insert for complete instructions.

### ANSR for *Salmonella* Enrichment Broth 2

Rehydrate 20.0 g of ANSR for *Salmonella* Enrichment Broth 2 with 1 L sterile water pre-warmed to 42°C.

### SAMPLE ENRICHMENT

**For raw meats, poultry carcass rinses and raw leafy greens and flours.**

1. Weigh 25 g sample in a Stomacher-type bag.
2. Add 225 mL **ANSR for *Salmonella* Enrichment Broth 2** (Neogen item 9812) (pre-warmed to 42°C) to the bag.
3. Homogenize (Stomacher, etc.) the sample as appropriate for the sample type.
4. For ground beef, incubate the sample at 42 + 1°C for **10–24 hours**. For other raw meat samples and poultry carcass rinses, incubate the sample at 42 + 1°C for **12–24 hours**.
5. For raw leafy greens and flours, incubate the sample at 42 + 1°C for **16–24 hours**.

### Quality Control Specifications

#### Dehydrated

**Appearance:** Medium is homogenous, free-flowing and white to light beige.

#### Re-hydrated

**Appearance:** Colorless to pale yellow, clear with no to light precipitate.

**Solubility:** 4.5 grams dissolves in 225 mL of water.

**pH:** pH of the re-hydrated medium should be  $7.2 \pm 0.2$ .

**Performance:** Stomacher-type bags were inoculated with the following organisms and the procedure was followed using the package insert:

Microorganism	ANSR for <i>Salmonella</i> test results
<i>S. enterica</i> subsp. <i>enterica</i> serovar <i>Cholerasuis</i> ATCC 13076	Positive
<i>P. aeruginosa</i> ATCC 27853	Negative

### **Test Procedure**

Refer to the ANSR for *Salmonella* package inserts for complete details.

### **Results**

Refer to ANSR for *Salmonella* package inserts for complete details. The presumptive identification of *Salmonella* spp. must be confirmed with biochemical and serological procedures.<sup>2,3</sup>

### **Storage**

Store ANSR media in a sealed container at 15 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Keep container tightly closed; protect from moisture.

### **Expiration**

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color.

### **Limitations of the Procedure**

1. Use re-hydrated medium within 6 hours of preparation.
2. Do not autoclave ANSR media or use expired media.
3. Sterile water should be brought to 36°C before use when using ANSR media.
4. The presumptive identification of *Salmonella* spp. must be confirmed by further testing.<sup>2,3</sup>

### **Packaging**

**ANSR for *Salmonella* Enrichment Broth 2**

**Code No. 9812 500 g**

### **References**

1. Edel, W., and E. H. Kampelmacher. 1973. Bull World Hlth. Org. 48:167-174
2. US Food and Drug Administration (November, 2011). Chapter 5. *Salmonella* in *Bacteriological Analytical Manual*: Retrieved from <http://www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalyticalManualBAM/ucm070149.Htm>
3. United States Department of Agriculture Food Safety Inspection Service. (January, 2011). Isolation and identification of *Salmonella* from meat, poultry, pasteurized egg and catfish products in *Microbiology Laboratory Guidebook* (4.05): Retrieved from [http://www.fsis.usda.gov/PDF/MLG\\_4\\_05.pdf](http://www.fsis.usda.gov/PDF/MLG_4_05.pdf)

### **Technical Information**

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