

9813 ANSR for *Salmonella* Enrichment Broth 3

Intended Use

ANSR for *Salmonella* Enrichment Broth 3 is used in the **Neogen ANSR for *Salmonella*** test method for the presumptive identification of ***Salmonella* spp.** from processed foods with a low microbial load and for environmental samples.

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.¹ 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.^{2,3} Edel and Kamelmacher¹ 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 3 allows for repair of cell damage and facilitates the recovery of *Salmonella* spp. when in environmental samples and samples of processed foods with a normal microbial load.

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 3

Rehydrate 42.1 g of ANSR for *Salmonella* Enrichment Broth 3 with 1 L sterile water pre-warmed to 36°C.

SAMPLE ENRICHMENT

For use with processed foods with a low microbial load and for environmental samples.

1. Weigh 25 g sample in a Stomacher-type bag.
2. Add appropriate amount of **ANSR for *Salmonella* Enrichment Broth 3** (Neogen item 9813) (pre-warmed to 36°C) to the bag.
3. Homogenize (Stomacher, etc.) the sample as appropriate for the sample type.
4. For processed foods, use 225ml of ANSR for *Salmonella* Enrichment Broth 3 and incubate the sample at 36 + 1°C for **16–24 hours**.
5. For environmental samples: sponge samples will typically use 100-200ml of enrichment broth while for swab samples, the volume is typically 10ml of enrichment broth. Incubate the sample at 36 + 1°C for **16–24 hours**.

Quality Control Specifications

Dehydrated

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

Re-hydrated

Appearance: Dark amber, clear without precipitate.

Solubility: 9.47 grams dissolves in 225 mL of water.

pH: pH of the re-hydrated medium should be 7.2 ± 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>E. coli</i> ATCC 25922	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.^{2,3}

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.^{2,3}

Packaging

ANSR for *Salmonella* Enrichment Broth 3 Code No. 9813 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

Technical Information

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