



RapidChek[®] CONFIRM[™] *Salmonella* Enteritidis Immunomagnetic Separation (IMS) Kit



Part #: 7000225

AOAC Approved Protocols:

This test kit's performance was reviewed by AOAC Research Institute and was found to perform to the manufacturer's specifications.



Intended Use

The RapidChek CONFIRM *S. Enteritidis* IMS Test Kit is designed to concentrate *Salmonella* Enteritidis (and other Group D1 serovars) in enriched poultry house environmental drag swab samples. The confirmation kit permits a 10 fold increase in concentration of *S. Enteritidis* in samples to be struck onto conventional, selective, confirmation agars. This kit should only be used by qualified, properly trained personnel.

Principle of the Assay

This confirmation kit utilizes a specific, high-affinity antibody attached to magnetic particles for purification of *Salmonella* Enteritidis and other Group D1 serovars from a complex enriched liquid media sample. It utilizes a monoclonal antibody specific for *Salmonella* Group D1 including *S. Enteritidis*. This antibody, specific for *Salmonella* Enteritidis, is coated onto magnetic particles which are used to concentrate the amount of *S. Enteritidis* present within an enriched sample, making confirmation of the presumptive positive result much more robust and easier to interpret. Essentially, the coated magnetic particles are added to a presumptive positive enrichment. If *S. Enteritidis* is present, it will bind to the magnetic particles via the coated antibody. A magnet is then used to concentrate the bound, coated magnetic particles and the remaining enrichment is discarded leaving only magnetic particles bound to the *S. Enteritidis* present in

the enrichment. Confirmation procedures are then continued with the concentrated sample.

Contents of Kit

7000225

<u>Description</u>	<u>Quantity</u>
SE Specific IMS Beads	5 mL
PBS-Tween Packet (Sigma Cat No. P3563)	1
Sample Tubes	100
Package Insert	1

Storage of Reagents

Store all reagents at 2-8°C. Do not freeze. Reagents may be used until expiration date on the box. The sample tubes require no special storage conditions and may be stored separately from the reagents to conserve refrigerator space.

The PBS-Tween Buffer for this kit is shipped as a powder and must be mixed with water to prepare the wash solution.

Materials Required but Not Supplied

Magnetic Separation Rack (7000227)
Vortex Mixer

Wash Buffer Preparation

Dissolve the contents of the Phosphate-Buffered Saline, 0.05% Tween 20 Packet (Sigma Cat No. P3563) in 1L of deionized water. Filter sterilize using 0.2 µm filter. *Alternatively*, sterile water can be used to re-hydrate the PBS-T packet and this solution can be stored at 4°C for up to 3 months.

Note: When removing the prepared PBS-T from 4°C, ensure that there are not any particles in the media. If particles are present, discard the remaining prepared solution and make a fresh PBS-T solution

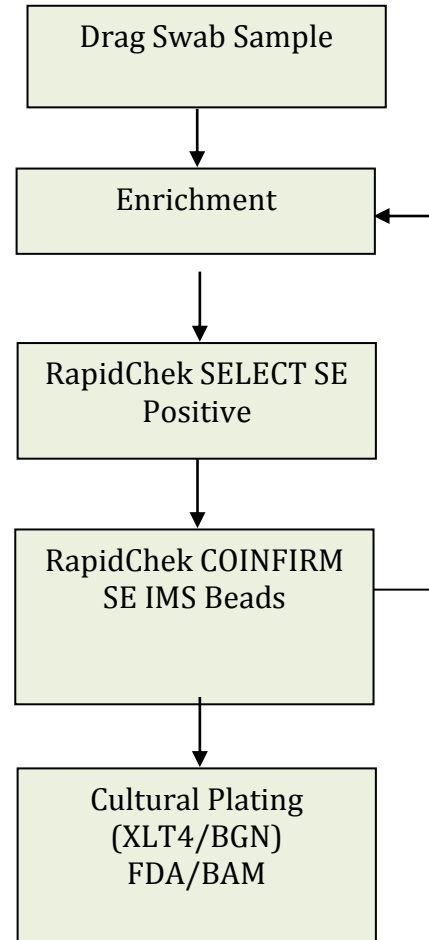


Immunomagnetic Particle Purification Protocol

1. Re-suspend the working stock of monoclonal antibody-magnetic particle reagent (MAB-MP) by repeated inversion of the vial.
2. Transfer 1 mL of the secondary enrichment to a provided 2 mL sample tube.
3. Add 0.05 mL of the IMS beads to the secondary enrichment in the tube. Vortex briefly to mix.
4. Incubate the sample at room temperature with rocking for 15 minutes.
5. Place sample tube on magnetic separation rack for 5 minutes.
6. Remove liquid from sample tube being careful not to touch the IMS beads on the side of the tube closest to the magnetic source.
7. Remove sample tubes from the magnetic source.
8. Add 1 mL Wash Solution (PBS-T) to the sample tube. Vortex to gently mix.
9. Place sample tube on magnetic separation rack for 5 minutes.
10. Remove liquid from sample tube being careful not to touch the IMS beads on the side of the tube closest to the magnetic source.
11. Repeat steps 8-10 for a total of 5 washes.
12. After the final wash step, reconstitute sample with 0.1 mL of Wash Solution. Vortex to mix.
13. Streak selective agar plates (i.e. XLT4 and BGN) with a 10 µL loop of the purified sample.

Proceed to the confirmation protocol described in "Environmental Sampling and Detection of *Salmonella* in Poultry Houses, October 2008, US FDA". This can be found at the following web address:

<http://www.fda.gov/Food/ScienceResearch/LaboratoryMethods/ucm114716.htm>



Disposal

Decontaminate used materials by autoclave, bleach, etc., in accordance with local, state and federal regulations.

Product Shelf life

The immunomagnetic particles are stable for up to one year when stored at 2-4°C. The wash buffer (PBS-T) must be filter sterilized before use and handled using standard sterile technique when in use. It may be stored at ambient room temperature when not in use.



Precautions

1. *Salmonella* Enteritidis is a human pathogen. Extreme care should be used in handling samples. Ensure all biohazardous waste is disposed of appropriately.
2. Storage conditions higher than 4°C are not recommended.
3. Do not use the kit beyond the expiration dating on the package label.
4. Follow standard Good Microbiological Practices where appropriate.

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