

### **AOAC-RI Performance Tested Method<sup>SM</sup> 041303: Evaluation of the Atlas<sup>®</sup> Salmonella G2 Detection Assay in Six Food Matrices and on Environmental Surfaces**

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**Introduction:** *Salmonella* has been implicated as a major cause of human foodborne illness worldwide. There is an increased demand to apply effective detection methods that are rapid, accurate, and easy to use.

**Purpose:** To evaluate the Atlas Salmonella G2 Detection Assay for the detection of *Salmonella enterica* spp. in food and environmental surfaces.

**Methods:** A single 10- or 12-hr enrichment for perishable foods and a 16-hr enrichment for non-perishable foods and environmental surfaces were used, and after enrichment, the sample was processed for bacterial lysis, template-specific sample extraction, amplification, and probe detection per assay protocol. A total of 6 foods and 3 environmental surfaces were compared to the USDA MLG 4.05 or FDA BAM-5 reference method in an internal study and 1 food and 1 environmental surface in an external study. Selectivity was evaluated by testing 100 target microorganisms in 3 different media and 30 non-target microorganisms.

**Results:** The assay detected 100% of 100 target *Salmonella enterica* spp. and did not detect 30 exclusive microorganisms. It was equivalent or better than the reference method for High Fat Ground Beef (25 g and 375 g), Lettuce (375 g), Deli Turkey (325 g) and Ground Turkey (375 g), Plastic Surface, Sealed Concrete, and Stainless Steel. Evaluation of 1 food, Ground Turkey (375 g), is still in progress. The test method provided the final result in 16-30 hr utilizing the Atlas Salmonella G2 Detection Assay compared to at least 3 days for cultural methods.

**Significance:** The Atlas Salmonella G2 Detection Assay detected *Salmonella enterica* spp. in a variety of food and environmental samples.

For more information or to request the full poster of this abstract, please email: [info@rokabio.com](mailto:info@rokabio.com)



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