SALMONELLA
Rapid, Convenient Salmonella Detection
An advanced Visual Immunoassay for screening food, food-related and environmental samples

Fast
- Using the TECRA ULTIMA Salmonella, you can have results in less than 36 hours!

Reliable
- High Sensitivity: 1-5 cfu/25 gram sample
- Detects motile and non-motile Salmonella

Convenient
- Simple two-step enrichment
- No M-broth required
- Single selective enrichment broth
- Results easily read by eye with option of semi-automated or fully automated testing

Proven Performance
- Evaluated for a wide range of food and environmental samples
- List of approvals:
  - AOAC Official Method 998.09
  - Validation AFNOR (validated against NF EN ISO 6579[2002]), Approval TEC-24/2-12/03

Cost Effective
- Less labour time per test compared with Standard Methods and other rapid methods that use M-broth and 2 selective enrichments
- Save money on culture media and laboratory consumables

Customer Support
- You can rely on the extensive training, technical and sales support from Biotrace International and its TECRA distributors

Why test for Salmonella?
Estimates from the US put total annual costs of the Salmonella pathogen at a substantial $2.3 billion.

The UK’s Food Standards Agency (FSA) and the Health Protection Agency (HPA) revealed that since 2002 the country had experienced more than 80 outbreaks of Salmonella enteritidis, with 2000 confirmed cases.¹

The simplicity of TECRA® ULTIMA™ Salmonella
All foods
25g sample + 225mL Pre-enrichment
0.1mL
10mL Rappaport-Vassiliadis R10 Broth or Rappaport-Vassiliadis Soy Peptone Broth
TECRA ULTIMA Salmonella

¹ Source: USDA, FDA, and CDC, Foodborne illness Costs Study 2010
Trial Results Show TECRA® ULTIMA™ Salmonella to be equivalent to the ISO Reference method.


Trial Parameters:
- 20 food types
- 140 samples
- 20 Salmonella strains
- 2 inoculum levels:
  - Uninoculated
  - Low Level (1-5 cells/25g sample)

Outcome:
TECRA ULTIMA Salmonella showed a zero false positive rate and a zero false negative rate. The ISO Reference method gave a zero false positive rate and 4 false negative results.

The results generated in this study support the applicability of TECRA ULTIMA Salmonella to a wide range of food types including raw and processed meats (including chicken), dairy products, egg products, confectionery, seafood, fruit and yeast products.

Product Information

<table>
<thead>
<tr>
<th>TECRA Product Code</th>
<th>No. of Wells</th>
<th>Max. No of Tests</th>
<th>Min. No of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALULT96</td>
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<td>94</td>
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</table>

TECRA Products for use with TECRA® ULTIMA™ Salmonella

<table>
<thead>
<tr>
<th>TECRA Product</th>
<th>TECRA Product Code</th>
<th>Pack Size</th>
<th>Sufficient for:</th>
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</thead>
<tbody>
<tr>
<td>Buffered Peptone Water</td>
<td>BPWMED500</td>
<td>500g</td>
<td>25 litres of medium</td>
</tr>
<tr>
<td>Lactose Broth</td>
<td>BPWMED2000</td>
<td>2kg</td>
<td>100 litres of medium</td>
</tr>
<tr>
<td>Rappaport-Vassiliadis [R10] Broth</td>
<td>TLBMED500</td>
<td>500g</td>
<td>38L medium</td>
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<tr>
<td>Rappaport-Vassiliadis Soy Peptone (RVS) Broth</td>
<td>RVRMED500</td>
<td>500g</td>
<td>18L medium</td>
</tr>
<tr>
<td>Tryptone Soy Broth</td>
<td>RVSMED500</td>
<td>500g</td>
<td>18L medium</td>
</tr>
<tr>
<td>TECRA® ENVIROSWAB™</td>
<td>TSNTTS960</td>
<td>500g</td>
<td>16L medium</td>
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<tr>
<td>Bulk Caps</td>
<td>CSNTTS960</td>
<td>960 caps</td>
<td></td>
</tr>
<tr>
<td>Bulk Tubes</td>
<td>TSNTTS960</td>
<td>960 tubes</td>
<td></td>
</tr>
<tr>
<td>Rack System</td>
<td>RSNTTS10</td>
<td>10 racks</td>
<td>(includes 960 tubes)</td>
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</tbody>
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References

**Why test for Salmonella?**

- Salmonella is regarded as one of the most serious threats to producers and consumers of food, all over the world.
- Food poisoning outbreaks involving this pathogen have resulted in major product recalls and substantial economic loss. Numerous cases of illness and many deaths have resulted from these outbreaks.
- Food poisoning outbreaks caused by Salmonella spp. have involved a wide range of foods including, meat and meat products, poultry, eggs, milk and dairy products, fish, shrimp, frog legs, yeast, coconut, sauces and salad dressing, cake mixes, cream-filled desserts and toppings, dried gelatin, peanut butter, cocoa, chocolate and pasta.
- It is estimated that up to 4 million cases of salmonellosis occur in the U.S. annually. The incidence of salmonellosis appears to be rising in the U.S. and other industrialised countries.
- The TECRA Visual Immunoassay (VIA) method makes testing for Salmonella fast, simple, reliable and economical.

**The TECRA Advantages**

- **Fast**
  - Results available within 42 hours compared to 4 days for standard cultural methods.
  - You can ship product sooner based on a rapid TECRA result.

- **Simple and Convenient**
  - No membrane strip which may become clogged with sample residue and affect the test result.
  - All reagents provided.
  - Easy-to-read results.
  - The option of using a single selective enrichment step, saving time and money.

- **Accurate & Reliable**
  - Unique high affinity TECRA antibodies give results in which you can have confidence.
  - Sensitivity: 1-5 cfu/25 gram sample
  - Specificity: 95-100%
  - Independent studies have shown the TECRA method to be more sensitive than comparative rapid methods. (Refer to the TECRA Salmonella VIA Technical Bulletin.)

- **Proven Performance**
  - Comparative studies show performance that is equivalent to standard cultural methods.
  - Extensive list of approvals:
    - AOAC (Association of Official Analytical Chemists, USA) Method No. 989.14, 998.09, 2000.07
    - AFNOR (Association Française de Normalisation, France)
    - MIRINZ (Meat Industry Research Institute of New Zealand)
    - NZFSA (New Zealand Food Safety Authority) Dairy & Plants Group
    - DPIE (Department of Primary Industry & Energy, Australia)/AQIS (Australian Quarantine and Inspection Service)
    - V.D. (Danish Veterinary and Food Administration)
    - NZDB (New Zealand Dairy Board) - Approval No. 95-12-03
    - MAB (Ministry of Agriculture, Brazil)
Materials Required (not included in the kit):

- Culture media including pre-enrichment broth, selective enrichment broths and M-broth
- Serological pipettes: 1mL
- Pipettes: 20µL, 50µL and 200µL
- Blender or homogeniser bags
- Incubators: 35-37°C and 42°C
- Screw-cap bottles or tubes
- Boiling water bath or similar
- Plastic squeeze bottle: 500mL
- Plastic cling wrap film
- Pipette tips

For even faster results:
Use the TECRA Salmonella IMMUNOCAPTURE™ kit (SALICM20) to replace the selective enrichment step. Together with the TECRA Salmonella VIA, IMMUNOCAPTURE™ allows negative samples to be screened out in only 24 hours.

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<th>No. of Wells</th>
<th>Max. No. of Tests</th>
<th>Min. No. of Tests</th>
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<tbody>
<tr>
<td>SALVIA48</td>
<td>48</td>
<td>46</td>
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<tr>
<td>SALVIA96</td>
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TECRA Products for use with Salmonella VIA

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Size</th>
<th>Sufficient for:</th>
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<tbody>
<tr>
<td>ENVSWB25</td>
<td>TECRAENVIROSWAB®</td>
<td>25</td>
<td>25 litres of medium</td>
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<tr>
<td>SALICM20</td>
<td>TECRA Salmonella IMMUNOCAPTURE™</td>
<td>20 tests</td>
<td>100 litres of medium</td>
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<tr>
<td>BPWMED500</td>
<td>Buffered Peptone Water</td>
<td>500g</td>
<td>38.5 litres of medium</td>
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<tr>
<td>BPWMED2000</td>
<td>Buffered Peptone Water</td>
<td>2Kg</td>
<td>13.8 litres of medium</td>
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<tr>
<td>IMBSUP50</td>
<td>Imbentin Supplement</td>
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<tr>
<td>IMBSUP2000</td>
<td>Imbentin Supplement</td>
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<td>18.8 litres of medium</td>
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<tr>
<td>TLBMED500</td>
<td>Lactose Broth</td>
<td>500g</td>
<td>10.9 litres of medium</td>
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<tr>
<td>YM8MED500</td>
<td>M Broth</td>
<td>500g</td>
<td>16.7 litres of medium</td>
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<tr>
<td>MBPMED500</td>
<td>Modified Buffered Peptone Water</td>
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</tr>
<tr>
<td>MBPMED2000</td>
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<td>RVRMED500</td>
<td>Rappaport-Vassiliadis R10 Broth</td>
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<td>Tetrathionate Broth Base</td>
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