

TECRA®

E. COLI O157 VISUAL IMMUNOASSAY

**A rapid and specific test for the detection of *E. coli* O157
in food and environmental samples**

Why test for *E. coli* O157?

- ♦ *E. coli* O157 is regarded as one of the most serious threats to the producers and consumers of food, all over the world.
- ♦ Food poisoning outbreaks, caused by *E. coli* O157, have involved a wide range of foods including meat and meat products, milk and dairy products, vegetables, salads and fruit juices.
- ♦ Outbreaks involving *E. coli* O157 have resulted in major product recalls and substantial economic loss. Numerous cases of illness and many deaths have resulted.
- ♦ The USDA has issued an *E. coli* O157:H7 test directive to producers, retailers and importers/exporters of raw ground beef products.
- ♦ The TECRA Visual Immunoassay (VIA™) method makes testing for all *E. coli* O157 (including O157:H7 strains) fast, simple, safe, reliable and economical.



The TECRA Advantages

Fast

- ♦ Results available within 20 hours compared to 2 days for standard cultural methods.
- ♦ Presumptive positive *E. coli* O157 obtained with the TECRA *E. coli* O157 VIA can be rapidly isolated from culture, for confirmation, using the TECRA *E. coli* O157 IMMUNOCAPTURE™ kit.
- ♦ Ship product sooner based on a rapid TECRA method result.

Convenient & Safe

- ♦ All reagents provided.
- ♦ Easy-to-read results.
- ♦ Proven performance for use with composite 375g ground beef samples.
- ♦ Heat treating samples ensures *E. coli* O157 are killed and safe to work with, unlike magnetic bead technology.

Accurate & Reliable

- ♦ The TECRA *E. coli* O157 VIA can be used to comply with the USDA's *E. coli* O157:H7 test directive.
- ♦ High affinity TECRA antibodies give results in which you can have confidence.
Sensitivity : 1-5 cfu/25 gram sample False positives: <1%
Specificity : >99% False negatives: <1%
- ♦ Studies have shown the TECRA method to be **more sensitive** than comparative rapid methods.

A rapid result without the compromise!

Can you afford to miss *E. coli* O157:H7 in your product?

Some E. coli O157:H7 strains, when environmentally stressed, fail to express the H7 antigen. E. coli O157:H7 specific kits may not detect these potentially lethal E. coli strains. The TECRA method detects all O157 strains, including those E. coli O157:H7 serotypes which do not always express the H7 antigen.

The TECRA method offers a full 18 hour enrichment step that utilises a specially-formulated Modified EC Broth to help ensure low levels of sub-lethally injured cells are recovered. Anything less is a compromise.



✓ Proven Performance

- ◆ Comparative studies show performance that is equivalent to standard cultural methods
- ◆ Extensive list of approvals:
 - AOAC-RI (Association of Official Analytical Chemists, USA, Research Institute), License No. 001101
 - Food Directorate, Health Canada (MFLP-91)
 - MAB (Ministry of Agriculture, Brazil)
 - MIRINZ (Meat Industry Research Institute of New Zealand)

✓ Customer Support

- ◆ You can rely on the extensive technical, training and sales support from TECRA staff and also through TECRA's global network of distributors.

✓ Economical

- ◆ The simplicity of the TECRA E. coli O157 VIA method frees up laboratory time for other tasks and projects. More can be accomplished with the same labor.
- ◆ Rapid results ensure inventory can be released earlier, reducing holding costs.

✓ Flexible

- ◆ Recommended for a wide range of foods and environmental samples.
- ◆ Depending on your specific needs, the kit can be used manually or automated for large scale testing.

Materials Required (not included in the kit):

- ◆ 35-37°C and 42°C Incubators
- ◆ Serological pipettes (1mL)
- ◆ Plastic squeeze bottle (500mL)
- ◆ Pipettes to dispense 20µL, 50µL and 200µL
- ◆ Disposable pipette tips
- ◆ Plastic cling wrap film
- ◆ Boiling water bath or equivalent (100°C) or heating device
- ◆ Small screw-cap bottles or tubes (e.g. 5mL) suitable for boiling
- ◆ Enrichment medium (TECRA Modified EC Broth)
- ◆ Sodium Novobiocin
- ◆ Homogeniser or blender bags
- ◆ Hydrochloric acid (conc. HCl)
- ◆ Sodium Hydroxide solution (1M, NaOH)

For raw meat only:

- ◆ Filter homogeniser bags and Imbentin (available from TECRA as MEATPK20)

Confirmation: For the confirmation of *E. coli* O157, TECRA recommends the E. coli O157 IMMUNOCAPTURE™ kit and a suitable selective agar.

Product Information

TECRA Product Code	No. of Wells	Max. No. of Tests	Min. No. of Tests
ECOVIA48	48	46	1
ECOVIA96	96	94	1

TECRA Products for use with E. coli O157 VIA

	TECRA Product Code	Pack Size	Sufficient for:
Meat Pack	MEATPK20	20 Filter homogeniser bags + 50mL Imbentin	20 enrichments
TECRA Modified EC Broth	MECMED500	500g	14 Litres of medium
E. coli O157 IMMUNOCAPTURE™ kit	ECOICM20	20 modules	20 confirmations
IMBENTINSUPPLEMENT	IMBSUP50	50mL bottle	22 samples

Your Partner in Rapid Testing



www.tecra.net

TECRA International Pty Ltd

13 Rodborough Road, Frenchs Forest NSW 2086, AUSTRALIA
Telephone: +61 2 8977 3000 Facsimile: +61 2 9453 3422
E-mail: enquiries@tecra.net

Distributed by:

TECRA[®]
Excellence in Rapid Testing