Molecular Platform for Pathogen Detection

- Greater Accuracy
- Faster Results
- Minimal Investment
What is ANSR®?

The food industry has emphasised a need for a quicker, easier and precise pathogen test to lessen the chances of contaminated food products reaching their customers.

Unlike other molecular technologies, ANSR (Amplified Nucleic Single-Temperature Reaction) utilises patent-pending, unique amplification reaction technology for in vitro DNA amplification at a constant temperature.

ANSR provides genetic level detection of low level specified targets in as little as 10 minutes following enrichment. ANSR’s enrichment and assay result in minimal matrix effects compared to conventional methods, in both food matrices and environmental samples.

How does ANSR work?

Isothermal DNA amplification and fluorescent detection

• Target pathogen DNA or RNA is released through the lysis of the enriched sample. A special molecular beacon is part of the ANSR reagent mixture.
  
  • When the lysed sample is added to the ANSR reagents, a special primer targets specific regions of the pathogen DNA and starts the amplification process.

• Millions of copies of the target pathogen DNA are created.

• Amplified segments of the pathogen DNA attach to special molecular beacons.

• The molecular beacons fluoresce when bound to the pathogen DNA, this is detected by the ANSR reader.

For further information please contact our technical representatives on: +44 (0) 1292 525 627 or email: microbiology_uk@neogeneurope.com
Benefits

- **NEW TECHNOLOGY**
  ANSR offers accurate DNA or RNA based detection and eliminates many of the limitations of other technologies available

- **GREATER ACCURACY**
  ANSR provides genetic level discrimination of specified targets at 1 cfu per sample

- **FASTER RESULTS**
  Results in as little as 24 hours

- **MINIMAL INVESTMENT**
  Low initial investment with sensible operating cost

- **MINIMAL FOOTPRINT**
  ANSR’s compact size makes it easy to fit in any laboratory setting

Products and Validations

**ANSR Salmonella**

- **ASSAY TIME**
  10 MINUTES POST ENRICHMENT

- **ENRICH**
  22±2 Hrs

**Validations:** *Salmonella* AOAC-PTM 061203
NF Validation NEO 35/02-05/13

**ANSR Listeria spp.**

- **ASSAY TIME**
  18 MINUTES POST ENRICHMENT

- **ENRICH**
  25±3 Hrs

**Validations:** *Listeria spp.* AOAC-PTM 101202
NF Validation NEO 35/03-01/16

**ANSR Listeria monocytogenes**

- **ASSAY TIME**
  10 MINUTES POST ENRICHMENT

- **ENRICH**
  27±3 Hrs

**Validations:** *Listeria monocytogenes* AOAC-PTM 061506
NF Validation NEO 35/04-03/16

**ANSR E.coli 0157:H7**

- **ASSAY TIME**
  10 MINUTES POST ENRICHMENT

- **ENRICH**
  12-26 Hrs*

*Depending on commodity

**Validations:** *E.coli 0157:H7* AOAC-PTM 111502

ANSR *Campylobacter* is also available. Please contact us for more details.

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Wet Pooling Explained

Pooling is the process of combining several different samples together and testing as one sample

Benefits

- Wet pooling allows samples from different matrix types to be combined. Combined samples can then be screened for the presence of all *Listeria* species
- Depending on the positive rate of the laboratory, up to 10 samples can be tested in one assay
- Wet pooling reduces the time required to process large numbers of samples while reducing costs

Please read kit insert instructions completely before performing test.

1. A small portion is taken from each individual sample.

2. Each individual sample is diluted 1:10 and incubated.

3. Pipette 1 mL from up to 10 enriched samples into a 10 mL tube and briefly vortex.

4. Follow assay procedure.

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Sample Test Procedure

Please read kit insert instructions completely before performing test.

1A. Following sample enrichment to test single samples, transfer 50 μL of enriched sample to the cluster tube and follow assay procedure.

1B. Following sample enrichment to test pooled samples, pipette 1 mL from up to 10 enriched samples into a 10 mL tube. Vortex briefly, transfer 50 μL of pooled enriched sample to the cluster tube and follow assay procedure. Currently available for Listeria spp.

2. Add 450 μL of lysis reagent solution to the sample.

3. Transfer sample tubes to 37°C heat block and incubate for 10 minutes. Transfer sample tubes to 80°C heat block and incubate for 20 minutes.

4. Transfer 50 μL of the lysed sample to preheated lyophilized reagents (56°C) in the reader.

5. Cap tubes and vortex briefly.

6. Return tubes to reader. Close the lid and click START in the ANSR software to begin assay.

7. Results will be displayed as positive, negative or invalid.

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Neogen has been a leader in foodborne pathogen detection since 1996.

ANSR is a molecular platform for pathogen detection, backed by our unmatched technical support and our years of experience in food safety diagnostics and genomics.