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DIAGNOSTICS

foodproof®

Vibrio Detection LyoKit

Real-time PCR

For safer food – BIOTECON Diagnostics – simply builds up trust!

Vibrio parahaemolyticus, *Vibrio vulnificus* and *Vibrio cholerae* are potential waterborne contaminants of seafood, causing severe health problems worldwide.

In contrast to traditional methods, which are time consuming and error-prone, the **foodproof® Vibrio Detection LyoKit** offers high sensitivity, 100% specificity and results in less than 24 hours. In just one single test, *V. parahaemolyticus*, *V. vulnificus* and *V. cholerae* are detected and discriminated. Simultaneously, the pathogenicity factors *ctx*, *tdh*, *trh1* and *trh2* can be detected and individually identified by melting curve analysis using sequence specific hydrolysis probes.

All relevant raw and processed seafood matrices such as whole squid, raw oysters or smoked salmon as well as other matrices, including water samples, can be analyzed. The rapid and easy sample preparation includes a live/dead discrimination step using Reagent D, eliminating false-positive results from dead *Vibrio*.

Fast: < 24 h to result, including enrichment

Safe: Unique 100% specificity and sensitivity and live/dead differentiation with Reagent D, preventing false-positive and false negative results. Minimizing carry-over contamination by using Uracil-N-Glycosylase

Licensed: Fully licensed technology

Easy: Convenient, lyophilized, pre-filled reaction mix. Complete solution including DNA extraction and real-time PCR analysis

Experienced: Manufacturer of PCR based rapid tests for the food industry since 1998 with an ISO 17025 accredited service lab

Best Specificity

100% Inclusivity

- 149 strains successfully tested, including associated toxin genes

100% Exclusivity

- > 70 strains of > 50 species tested, including closely related organisms and microorganisms of the same habitat

Sensitivity

Limit of Detection (LOD):
1 genomic equivalent (GE) for species discrimination,
10-25 GE for toxin gene identification

Matrices

Compatible with raw seafood (e.g. white shrimp, whole squid, raw oysters), processed seafood (e.g. fish dumplings, smoked salmon), ready-to-eat and mixed food (e.g. sushi, wakame salad), and other matrices, like water samples or vegetables

A T C A T C G T A T C C A T C C C T A T C C A T C C C T
 T C A T C C C T A T C G C T T C C A T C T G C T T C A
 A T C T T C A T C C G T A T C T G C T T C C A T C T G C T
 C C A T T T C A T C C G T A T C
 G C T T C C A T C C C T A T C G C
 T C A T C C A T C C C T A T C T G C T T C C A T C T G C T



BIOTECON Diagnostics

Workflow



Start
Enrichment



DNA Extraction*
approx. 50 min



PCR Setup
approx. 10 min



Real-time PCR Run
100 min

Analysis Results in 3 h

* including live and dead differentiation

Vibrio Detection LyoKit

R 602 44 foodproof® Vibrio Detection LyoKit (5'Nuclease)

Specific Sample Preparation Kits

S 400 18 foodproof® StarPrep Three Kit, 96 isolations

A 500 02 S Reagent D, removes DNA from dead cells during extraction

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LyoKits storage at 2 °C to 8 °C
96 Reactions with a final volume of 25 µl

Instrument Compatibility

- LightCycler 480, LC 96
- 5'Nuclease / TaqMan®
cycler (e.g. PikoReal 24,
AriaMx, CFX96, ABI 7500)

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