

Rapid Screening for Contaminants in Seafood



Optical Biochip for Regulated Marine Biotoxins: Single and Multiplex Test Devices



Strategy based on

- Antibodies
- Microarrays

Steps

- Extraction
- Detection



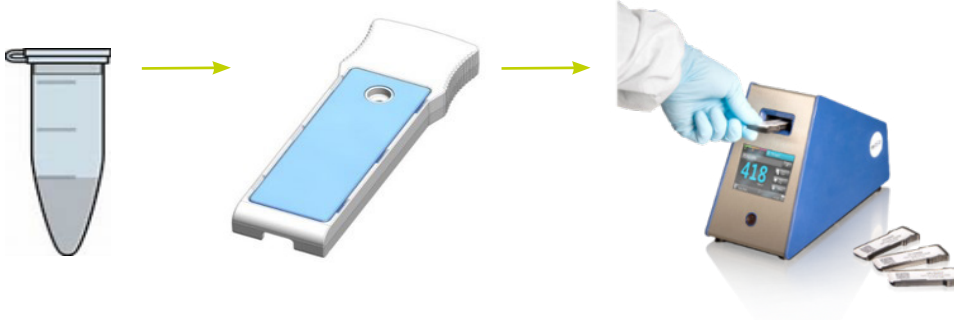
Test Procedure

1. Add sample to assay buffer
2. Transfer to Cartridge
3. Read at 5-10 min

Dye-labeled Ab

Targeting

- Saxitoxin
- Okadaic Acid
- Domoic Acid
- Azaspiracid
- Tetrodotoxin



Rapid Sample Preparation

EU-Commission Regulation 853/2004

1. Weigh homogenate
2. Dilute with buffer
3. Vortex/Mix and filter
4. Dilute in assay buffer and apply to test cartridge

Marine Biotoxin Group	MRL per kg of Flesh	MRL/ppb
Paralytic Shellfish Toxins	800µg	800
Amnesic Shellfish Toxins	20mg	20000
Okadaic Acid, Dinophysistoxins and Pectenotoxins	160µg	160
Azaspiracids	160µg	160

Features & Benefits

- Developed using highly sensitive antibodies
- Excellent Limits of Quantification to meet global requirements- all <1ng/mL
- Does not require high level of technical expertise
- 100 results possible when multiplex test is further developed
- Delivers results in 20 minutes
- Lower cost per test than confirmatory analysis