



## **Biorex Food Diagnostics**

Biorex Food Diagnostics was established in 2014 as a subsidiary of Fortress Diagnostics (a globally recognized IVD provider). We work with food producers, government agencies, third-party laboratories, and import/export authorities to deliver innovative food and feed testing kits that improve food safety worldwide. All our products are manufactured to the highest standards at our ISO 13485 -accredited facility in Northern Ireland, UK.

Our mission is to bring reliable, affordable testing to every part of the honey industry to provide producers with the ability to carry out in-house testing and strengthen their quality assurance. We've made significant R&D investments to develop and validate test kits specifically for honey, ensuring they are accurate, easy to use and tailored to real-world industry needs.

## Benefits of In-House Residue Testing



#### **Direct Oversight**

Maintain control over the entire testing process, ensuring alignment with production schedule and quality standards.



### Customization

Tailor testing protocols to the specific needs of your honey products and the regulations of target markets.



### Immediate Action

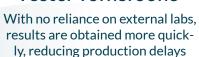
Quickly identify and address any contamination issues, preventing delays in production and export.



### Faster Turnaround

In-house testing eliminates the need for expensive external laboratory services, significantly lowering costs over time.

**Reduced Testing Costs** 



and improving responsiveness.



### Long-Term Investment

The initial setup costs for inhouse testing are offset by ongoing savings and improvements in product quality and compliance.



### **Improved** Compliance

In-house testing enables continuous monitoring and adherence to of non-compliance.



### **Consistent Quality** Control

Regular in-house testing helps maintain high product quality, EU regulations, reducing the risk ensuring that honey consistently meets market standards.

# Rapid Test Analysis: FlowSense

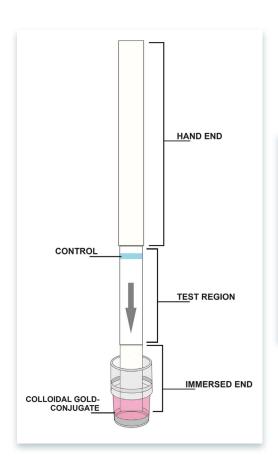
## Efficient & Accessible Food Safety Analysis

The FlowSense product range offers a cost-effective and user-friendly rapid test solution for contaminant testing within the food industry. Unlike traditional test solutions, FlowSense testing can be completed outside a laboratory setting.

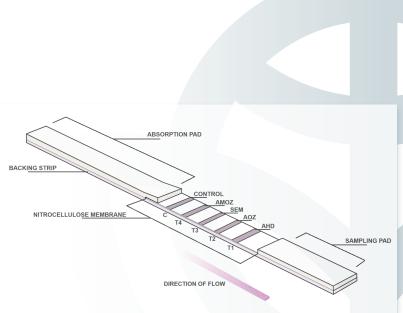
With minimal initial investment and technical expertise required, the FlowSense product range enhances the frequency of testing within food production quality schedules, enabling more consistent monitoring and quicker responses to any issues that may arise. By incorporating regular testing, food producers can maintain higher standards of quality and compliance, ultimately benefiting the overall operational efficiency and ensuring product safety.

## Key Features & Benefits

- Minimal initial investment required.
- Eliminate expenses associated with third-party testing.
- No prior experience or extensive technical knowledge needed.
- Portable reader for convenient use.
- Enhance frequency of testing within your quality schedule.
- Multiplex analysis.



 $\Delta$  Lateral flow orientation during test protocol.



△ Innovative multiplex design of a FlowSense test.

\*Test lines are visible for descriptive purposes - an unused LFD will only present a blue control line to the naked eye.

# FlowSense Testing Panel

Description	Cat No.	Assay Time	Sample Preparation	Antibiotic	FlowSense Reader Detection (ppb)	Visual Detection (ppb)
Streptomycin Honey (Quant) Flowsense Rapid Test	BXEFB55A-Q	10mins	Weigh sample, add diluted sample diluent and shake	*Streptomycin Dihydrostreptomycin	2 3	N/A N/A
Multi-Sulfonamides Flowsense Rapid Test (High Sensitivity)	BXEFB56A	8mins	Weigh sample, add diluted sample diluent and shake	*Sulfadimidine (Sulfamethazine) Sulfametoxydiazine Sulfaclozine Sulfamenomethoxine Sulfamenomethoxine Sulfadimethoxine Sulfadimethoxine Sulfamerazine Sulfamerazine Sulfachloropyridazine Sulfamoxole Sulfamethizole Sulfamethoxypyridazine Sulfaphormethoxine Sulfapyridine Sulfamethoxazole Sulfamethoxazole Sulfathiazole	1 1.5 1.5 1.5 1.5 2 1.5 2 2 3 4 9 20 20 25 45 60	1.5 1.5 2 2 2 3 3 3 4 4 6 8 10 40 40 60 90 100
Multi-Antibiotic Honey (Quinolones/ Thiamphenicol/ Spectinomycin) Flowsense Rapid Test	BXEFB57A	10mins	Weigh sample, add diluted sample diluent and shake	*Enrofloxacin Norfloxacin Ciprofloxacin Ciprofloxacin Oxolinic acid Danofloxacin Pefloxacin Flumequine Lomefloxacin Fleroxacin Difloxacin Ofloxacin Enoxacin Sarafloxacin Nalidixic acid Marbofloxacin Thiamphenicol Spectinomycin	0.75 0.75 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.5 1.5 1.5 1.5 1.5 3 3 3 4 4 4 6 15 5 15
Multi-Antibiotic Honey (Erythromycin/ Tylosin/Tetracyclines) Flowsense Rapid Test	BXEFB58A	10mins	Weigh sample, add diluted sample diluent and shake	*Erythromycin *Tylosin Tilmicosin *Tetracycline Oxytetracycline Doxycycline Chlortetracycline	10 10 12 8 12 20 15	15 10 15 15 15 40 30
Chloramphenicol Honey Flowsense Rapid Test	BXEFB59A**	8mins	Dilute sample, Solvent Extraction, Evaporate, Reconstitute	*Chloramphenicol	0.2	0.5
Multi-Nitrofuran Honey (AHD/AOZ/ SEM/AMOZ)	BXEFB60A**	10mins	Hydrolysis and derivatisation (15 minutes at 60°C), Solvent Extraction, Evaporate, Reconstitute	*Nitrofurantoin (AHD) *Furazolidone (AOZ) *Nitrofurazone (SEM) *Furaltadone (AMOZ)	0.25 0.25 0.25 0.5	0.5 0.5 0.5 0.5

**Δ**\*Reporting target **Δ**\*\*Solvent use required.

# Coming Soon: Glyphosate and Pesticides

### Accessories

Description	Cat.No				
FlowSense Reader	BIOXBFD60				
FlowSense Reader Adaptor (4.5mm)	BIOXBFD63				
FlowSense Reader Adaptor (20x70mm)	BIOXBFD62				
Dry Bath Incubator	BIOXBFD51				
FlowSense Printer	BIOXBFD67				

## **FLOWSENSE READER**

The FlowSense Reader has been designed to provide an accessible and effective method for food quality testing, offering numerous advantages to end-users. With a low initial investment, it is financially viable for a wide array of businesses and organisations. Its user-friendly design eliminates the need for prior experience or specialised technical skills, ensuring that anyone can operate it with ease.

Thanks to its portability, the FlowSense Reader can be used effortlessly in various environments, from field operations to different areas within food production facilities. This convenience allows for seamless integration into any workflow, ensuring that testing can be conducted without interruptions.

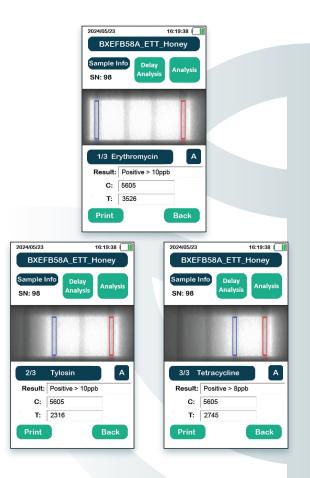
## **Key Benefits**

- Easy user accessibility with minimal training needed.
- Portable for on-site testing.
- Provides semi-quantitative results to reduce visual interpretation errors.
- Multiple target analysis capability.
- Export via USB drive.
- High data storage capacity.
- Easy printing facilities via USB.

## User Interface



Δ Portable for on-site testing.



 ${\color{red}\Delta}\, \text{Multiple analysis target capability with semi-quantitative results}.$ 



# **Antibiotic ELISA Analysis**

AHD FAST         BXEFB43A         45mins         2.NP.AHD 100%         96T         Honey         0.5ppb           AMOZ FAST         BXEFB42A         45mins         2.NP.AMOZ 100%         96T         Honey I Honey I Honey II         0.1ppb Honey II         0.1ppb Honey II         0.1ppb Honey II         0.3ppb           Chloramphenicol FAST         BXEFB03A         45mins         Chloramphenicol 100% Chloramphenicol Glucuronide >100% Chloramphenicol Glucuronide >100% Chloramphenicol Glucuronide >100% Ciprofloxacin 100% Ciprofloxacin 100% Ciprofloxacin 100% Ciprofloxacin 90% Marbofloxacin 65% Difloxacin 26% Sarafloxacin 26% Sarafloxacin 26% Sarafloxacin 26% Sulfamethizole >100% Sulfamethizole >100% Sulfamethizole >100% Sulfamerazine >100% Sulfamerazine >100% Sulfamerazine >100% Sulfamerazine >100% Sulfamerazine >100% Sulfamonomethoxine >100% Sulfaminoxaline >100% Sulfaminoxa	Kit Description	Cat.No	Assay Time	Specificity	Kit Size	Sample Types	Limit of Detection
AOZ FAST  BXEFB41A 45mins  2.NP.AOZ 100%  96T Honey I 0.1ppb 0.3ppb  Chloramphenicol FAST  Chloramphenicol Glucuronide > 100% Norfloxacin 100% Ciprofloxacin 90% Marbofloxacin 65% Difloxacin 26% Sarafloxacin 26% Danofloxacin 65% Difloxacin 65% Sulfamethizole > 100% Sulfaquinoxaline > 100% Sulfaquinoxaline > 100% Sulfaquinoxaline > 100% Sulfamonomethoxine > 100% Sulfamonomethoxine > 100% Sulfamonomethoxine > 100% Sulfamonomethoxine > 100% Sulfapyridazine > 100% Sulfapyridazine > 100%	AHD FAST	BXEFB43A	45mins	2.NP.AHD 100%	96T	Honey	0.5ppb
Chloramphenicol FAST  Chloramphenicol Glucuronide >100% Chloramphenicol Glucuronide >100% Fluoroquinolones  BXEFB07A  45mins Enrofloxacin 100% Norfloxacin 100% Ciprofloxacin 90% Marbofloxacin 65% Difloxacin 26% Sarafloxacin 20% Danofloxacin 65% Difloxacin 20% Sulfamethizole >100% Sulfaquinoxaline >100% Sulfaquinoxaline >100% Sulfamerazine >100%	AMOZ FAST	BXEFB42A	45mins	2.NP.AMOZ 100%	96T		
Fluoroquinolones  BXEFB07A 45mins  Enrofloxacin 100% Norfloxacin 100% Ciprofloxacin 90% Marbofloxacin 26% Difloxacin 26% Sarafloxacin 20% Danofloxacin 65%  Multi-Sulfonamide (11 targets)  BXEFT08A 75mins Sulfamethazine 100% Sulfaquinoxaline >100% Sulfaquinoxaline >100% Sulfamerazine >100% Sulfamonomethoxine >100% Sulfamonomethoxine >100% Sulfapyridazine >100%	AOZ FAST	BXEFB41A	45mins	2.NP.AOZ 100%	96T		
Norfloxacin 100% Ciprofloxacin 90% Marbofloxacin 65% Difloxacin 26% Sarafloxacin 20% Danofloxacin 65%  Multi-Sulfonamide (11 targets)  BXEFT08A 75mins Sulfamethazine 100% 96T Honey (Rapid Screen) Sulfaquinoxaline >100% Sulfaquinoxaline >100% Sulfadiazine 100% Sulfamerazine >100% Sulfamonomethoxine >100% Sulfapyridazine >100%		BXEFB03A	45mins	Chloramphenicol Glucuronide	96T	Honey	0.05ppb
(11 targets)  Sulfamethizole >100% Sulfaquinoxaline >100% Sulfadiazine 100% Sulfamerazine >100% Sulfamonomethoxine >100% Sulfapyridazine >100% Sulfapyridazine >100%	Fluoroquinolones	BXEFB07A	45mins	Norfloxacin 100% Ciprofloxacin 90% Marbofloxacin 65% Difloxacin 26% Sarafloxacin 20%	96T	Honey	4ppb
Sulfamethoxazole 92% Sulfisoxazole 55% Sulfapyridine 34% Sulfadoxine 24%		BXEFT08A	75mins	Sulfamethizole > 100% Sulfaquinoxaline > 100% Sulfadiazine 100% Sulfamerazine > 100% Sulfamonomethoxine > 100% Sulfapyridazine > 100% Sulfathiazole > 100% Sulfamethoxazole 92% Sulfisoxazole 55% Sulfapyridine 34%	96T	Honey	(Rapid Screen) 3ppb
Nitromidazole BXEFB40A 55mins Metronidazole 100% 96T Honey 3ppb (Metronidazole) Dimetridazole > 100% Ronidazole < 1%		BXEFB40A	55mins	Dimetridazole >100%	96T	Honey	Зррь
SEM FAST BXEFB44A 45mins 2.NP.SEM 100% 96T Honey I 0.1ppb Honey II 0.1ppb	SEM FAST	BXEFB44A	45mins	2.NP.SEM 100%	96T		
Streptomycin FASTBXEFB37A60minsStreptomycin 100% Dihydrostreptomycin 129%96THoney5ppb	Streptomycin FAST	BXEFB37A	60mins		96T	Honey	5ppb
Tylosin BXEFT13A 50mins Tylosin A 100% 96T Honey 1ppb	Tylosin	BXEFT13A	50mins	Tylosin A 100%	96T	Honey	1ppb

## Key Benefits of BFD Honey Analysis

- No expensive analyser required.
- Rapid result time.
- Suitable for high throughput automation.
- Detection limits meet EU regulations.
- Minimal technical expertise required.
- Nitrofuran multiplex sample preparation.
- Spiking solution provided.
- Ready-to-use Nitrobenzaldehyde.
- Dedicated 4-parameter curve software.



## Which Test Method is Right for Your Business?

Need	Go with	Why
Quick, on-site decision making	FlowSense	Fast, portable, and easy-to-use screening
Lab-based batch testing	ELISA	Efficient, cost-effective for multiple samples
Official confirmation/reporting	Confirmatory	Mandatory for legal enforcement and dispute resolution
New to testing or small volumes	FlowSense	Easy entry point, low barrier to use
Working in export markets	FlowSense + Confirmatory	Screen with FlowSense, confirm as needed

- ✓ Our Recommendation: Combine and Conquer
- 1. Screen with FlowSense
- 2. Batch test with ELISA
- 3. Confirm when needed

## **Honey Quality**

### Rapid, easy-to-use and cost-effective honey quality tests

To determine honey quality measurements Biorex Food Diagnostics has developed a range of enzymatic tests. These tests offer honey producers the ability to determine not only quality, but also shelf life and ability to hold moisture.

With minimal capital outlay for the PRISM instrument and easy-to-use interface, these tests can be used with very little technical expertise outside a laboratory environment.

Kit Description	Cat.No / No. of Tests	Method	Limit of Detection
PRISM Analyser	BIOXBFD48 / N/A	Instrumentation	N/A
Glucose/Fructose	BXEFC02C / 50T	Colorimetric	Glucose: 2.3g/100g Total Sugars: 2.8g/100g
Glucose Controls (Low and High)	BXEFC04A / 50T	Colorimetric	
HMF	BXEFC01A / 100T	Colorimetric	2mg/kg

### Instrumentation & Laboratory Equipment

We also offer a range of instrumentation for honey testing and a full laboratory service with additional training available. Instrumentation includes: plate reader, sample evaporator, centrifuge, multi-vortexer, pH meters, pipettes, PRISM and consumables.



Our Laboratory Equipment Catalogue is now available to view and download online.











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