



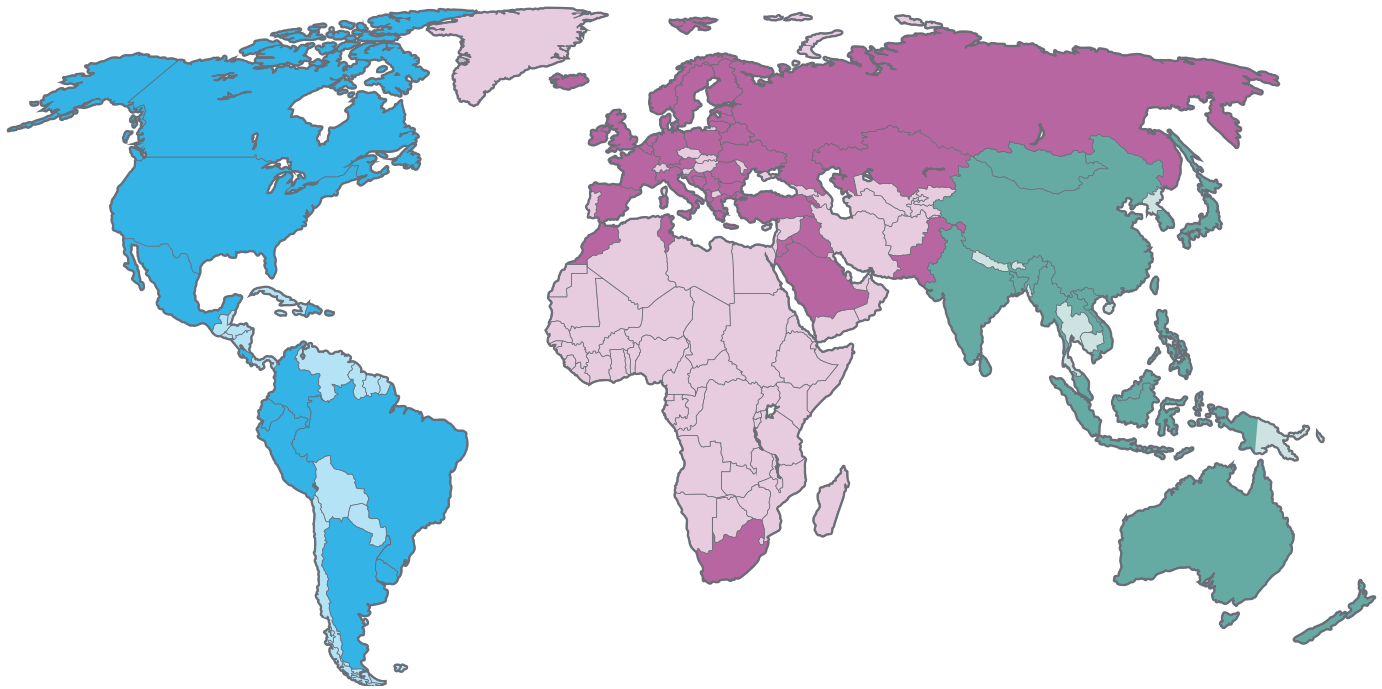
# SEAFOOD TESTING



# SUPERIOR SEAFOOD TESTING, ALL IN ONE PLACE

As a leader in the food and feed safety testing industry, PerkinElmer develops, manufactures, and markets a wide range of seafood testing kits for the detection of antibiotic, histamine, and phycotoxin residues. Consider PerkinElmer your one-stop-shop for seafood safety test kits! Testing for histamine and drug residues is now simpler than ever with the MaxSignal® and HistaStrip™ products. With our MaxSignal® ELISA product line, as well as our AOAC-approved enzymatic kit and field-based strip test for histamine, customers can detect histamine at any point in their supply chain.

## DISTRIBUTORS CAN BE FOUND ALL OVER THE WORLD



Contact [Bioo.Sales@PerkinElmer.com](mailto:Bioo.Sales@PerkinElmer.com) to find out how you can purchase products in your territory.

## RAPID DETECTION KITS FOR HISTAMINE



Histamine is a contaminant found in improperly handled seafood. High levels of histamine in seafood are often associated with scombroid poisoning, a bacterially induced illness from spoiled fish. Scombroid poisoning triggers acute allergic response, vomiting, diarrhea, hypotension, rashes, and hives. The international codex standard for fish includes histamine levels as indicators of decomposition, hygiene, and handling. Good quality fish contains less than 10 ppm of histamine, whereas 30 ppm indicates significant deterioration. The defect action level (DAL) imposed by the US-FDA is 50 ppm<sup>1</sup>.

### MaxSignal<sup>®</sup> Histamine Enzymatic Kit

- Fastest AOAC approved histamine kit on the market.
- Detect as low as 3 ppm of histamine.
- Almost no cross reactivity with other biogenic amines.

The MaxSignal<sup>®</sup> Histamine Enzymatic Assay Kit is a colorimetric enzymatic assay for the determination of histamine in fresh fish/seafood (AOAC-validated), fish meal, wine, and milk. Histamine is a contaminant that can be found in seafood when it is improperly handled or stored, causing scombroid food poisoning. Quality tuna has histamine levels below 50 ppm. The amount of histamine can be determined using ELISA or LC-MS. However, these traditional methods require very expensive instrumentation and time-consuming sample preparation procedures.

The MaxSignal<sup>®</sup> Histamine Enzymatic Assay Kit enables international and government regulatory agencies, food manufacturers and processors, as well as quality assurance organizations, to detect histamine in animal matrices in response to customer concerns about food safety.

The kit contains histamine standards to verify assay performance and construct an assay calibration curve.

CATALOG #	PRODUCT	QTY
FOOD-1032-09	MaxSignal <sup>®</sup> Histamine Enzymatic Assay	1 x 96 wells



	Sample Type						
	Frozen Tuna	Mahi-Mahi	Canned Tuna	Fresh Tuna	Pouched Tuna	Stability Frozen Tuna	Ruggedness Frozen Tuna
MaxSignal <sup>®</sup> Method	6.1	3.9	4.2	5.9	3.4	3.2	2.4
AOAC 977.13	5.4	3.1	3.4	5.0	3.6	2.8	2.2

AOAC 977.13 OMA method was used for establishing background histamine content in frozen/fresh tuna, canned tuna, pouched tuna, and mahi-mahi samples used in the study.

#### Reference

1. Hungerford, J.M. (2010) Toxicon 15, 231-243.

## HistaStrip™ Test Kit

CATALOG #

PRODUCT

QTY

FOOD-1100-01

HistaStrip™ Test Kit






24 strips

- 4 minutes to results with strip test.
- Easy, color-coded visual test.
- Now able to quantify with reader.

The HistaStrip™ Test Kit is a convenient dipstick technology used for the rapid visual detection of histamine in seafood, fishmeal, milk, and fish sauce. The test strips can detect unsafe levels of histamine in only 4 minutes without the use of organic solvents or heating steps.

The HistaStrip™ test strips contain a pad embedded with enzyme that reacts specifically with histamine to chemically reduce a dye indicator, producing a color change for easy visual interpretation of results. When the strips are dipped into samples containing histamine, the pad rapidly changes from white to a color designating the histamine concentration present in the food or drink. Detection capabilities using the strips are well below global Maximum Residue Limits (MRL). The self-contained, visual test enables easy testing in and out of the laboratory.

The HistaStrip™ can also give full quantitative results using the QuickSTAR™ Strip Reader, enabling the customer to determine exact levels of histamine in the sample and easily save data to a computer and quality assurance system.

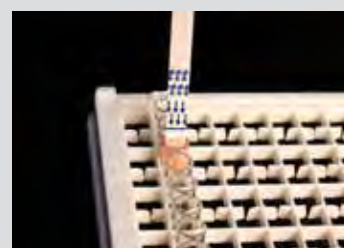
Sample:					
Seafood	0	25	50	75	100
Milk	0	12	24	36	48
Fish Sauce	0	125	250	375	500
Fishmeal	0	500	1000	1500	2000



Homogenize sample



Add enrichment solution & mix



Dip test strip into sample



Read results

## ELISA KITS FOR THE SCREENING OF FOOD FOR NITROFURAN RESIDUES

Nitrofurans are antibiotics frequently used in animal production due to their highly efficient antibacterial properties. These drugs are also used as growth promoters during the production of shrimp. However, the parent compounds and their metabolites have been shown to have carcinogenic and mutagenic characteristics which led to the banning of nitrofurans for the treatment of animals used for food production. In 1993, the EU banned the nitrofurans furaltadone, nitrofurantoin, and nitrofurazone for use in animals used as sources of food, and in 1995 the use of furazolidone was also banned.

### MaxSignal® Nitrofuran ELISA Kits

- Offers rapid and cost-effective extraction methods for various samples
- Single extraction protocol for the analysis of AHD, SEM, AMOZ, and AOZ
- Low detection limit - 0.05 ppb

CATALOG #	PRODUCT	QTY
FOOD-1015-03F	MaxSignal® Furazolidone (AOZ) ELISA Kit	1 x 96 wells
FOOD-1020-03F	MaxSignal® Furaltadone (AMOZ) ELISA Kit	1 x 96 wells
FOOD-1069-01F	MaxSignal® Nitrofurazone (SEM) ELISA Kit	1 x 96 wells
FOOD-1070-02F	MaxSignal® Nitrofurantoin (AHD) ELISA Kit	1 x 96 wells

The MaxSignal® Nitrofuran group of products provides competitive ELISA kits for the quantitative analysis of each nitrofuran in feed, fish, shrimp, meat, honey, milk, serum, and urine.

The MaxSignal® technology is based on a competitive colorimetric ELISA assay in which the antibody has been coated in the plate wells. During the analysis, sample is added along with target-specific HRP conjugate. If the target residue is present in the sample, it will compete for the antibody, thereby preventing the HRP from binding to the antibody attached to the well. The resulting color intensity, after addition of the TMB substrate, has an inverse relationship with the target drug residue concentration in the sample.

These kits are manufactured to the international quality standard ISO 9001.





## MaxSignal® 4302 Microplate Reader

The MaxSignal® 4302 Microplate Reader is a versatile microplate spectrophotometer for 96-well plates providing all the functionality needed for numerous laboratory applications while offering great performance and value.

The MaxSignal® 4302 Microplate Reader is a compact, PC-controlled, multi-purpose instrument designed to read and calculate the results of microplate-based assays. Plates containing microstrips can be read as whole plates or as partial strips. The compact space saving design makes it ideal for stand-alone use.

[CATALOG](#)  
#FOOD-6003-01



## QuickSTAR™ Strip Reader

The QuickSTAR™ Strip Reader is a patented ruggedized handheld lateral flow testing system that provides rapid quantitative assay results and increases testing throughput and efficiency. The reader features a rechargeable lithium battery, a touchscreen menu driven interface, and provides the user test results in less than 10 seconds. The reader is compatible with a wide array of pre-programmed test types and is software-upgradeable to accommodate additional assays.

[CATALOG](#)  
#FOOD-1952-02

## OTHER SEAFOOD TEST KITS

### ANTIBIOTIC

MaxSignal® Amoxicillin ELISA Kit  
MaxSignal® Chloramphenicol ELISA Kit  
MaxSignal® Chlortetracycline ELISA Kit  
MaxSignal® Ciprofloxacin ELISA Kit  
MaxSignal® Doxycycline ELISA Kit  
MaxSignal® Enrofloxacin ELISA Kit  
MaxSignal® Erythromycin ELISA Kit

MaxSignal® Florfenicol ELISA Kit  
MaxSignal® Fluoroquinolone ELISA Kit  
MaxSignal® Nitroimidazoles ELISA Kit  
MaxSignal® Oxytetracycline ELISA Kit  
MaxSignal® Sulfamethazine ELISA Kit  
MaxSignal® Sulfamethoxazole ELISA Kit  
MaxSignal® Sulfonamide ELISA Kit

### PHYCOTOXIN

MaxSignal® Domoic Acid (ASP) ELISA Kit  
MaxSignal® Saxitoxin (PSP) ELISA Kit

### OTHER RESIDUES

MaxSignal® Crystal Violet ELISA Kit  
MaxSignal® Diethylstilbestrol ELISA Kit  
MaxSignal® Malachite Green ELISA Test Kit



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