

# Food Safety Analysis



Using Elabscience Food Safety Kits



# About Elabscience

Elabscience® is a high-tech biological company specializing in the development, production and sales of immunoassay reagents. The main products are Food Safety Kits, Animal Disease Kits, ELISA Kits, CLIA Kits, FCM Antibodies, Cell Function Assays, Metabolism Assay Kits, Antibodies, Proteins, Labeling Kits, Immunology Related Reagents, etc.

Since 2009, Elabscience® has been developing and producing high-quality scientific reagents to provide a comprehensive range of protein detection products for the life sciences. At present, Elabscience® has accumulated 30 invention patents and 70 utility model patents, and its products have passed ISO9001 and CE certification. More than 10,000 SCI articles have been published, and highly commended as "ELISA KIT SUPPLIER TO WATCH IN 2019" by CiteAb. Through unremitting efforts and development, Elabscience® products have been widely recognized by the market, and customers have spread to more than 100 countries all over the world.





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## Food Safety Product Features



### Universal

- No species restriction
- Multiple samples are strictly validated



### Strict Quality Control

- Small batches variation (CV<10%)
- Long shelf life of 12 months



### Rich Indicators

- Five categories, more than 150 indicators
- Covering 98% popular indicators of global market



### Multiple Analytical Methods

- ELISA, LFDs, PCR



### Technical Service

- 8hrs response
- 24hrs solution for customer

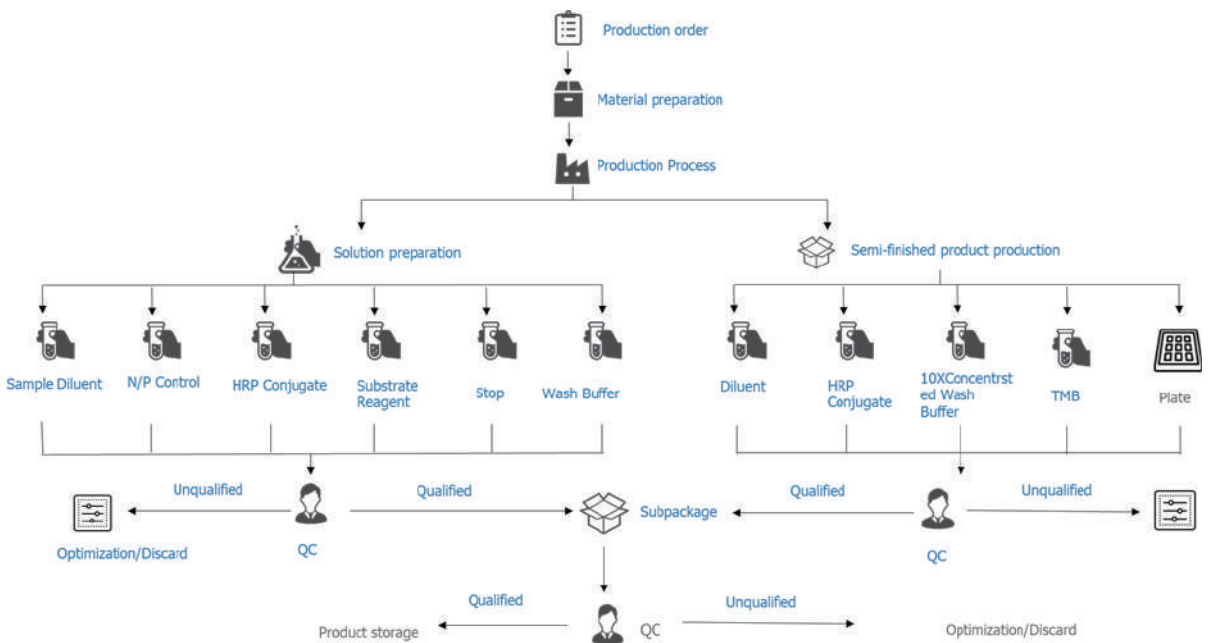
## Product Overview



Test Kit / Methods	ELISA	LFDs	PCR	Microbiological
Mycotoxins	✓	✓		
Residues&Contaminants	✓	✓		
Vitamins				✓
Food allergens			✓	
Microbiology	✓		✓	



### Higher Quality







## Mycotoxins

### Mycotoxins

Mycotoxins are found in almost all kinds of animal feeds and foods, such as cereals, wheat bran, pasta, pea shells and corn kernels, milk, etc. Molds like to live in warm and humid environments, and are capable of growing on or inside food before and after harvesting. Because most of them are chemically stable, it's difficult to remove it in food processing.

The most common mycotoxins that are harmful to human and livestock health are total aflatoxin, aflatoxin B1, aflatoxin M1, ochratoxin A, fumonisin, zearalenone, deoxynivalenol and so on. Although most countries have established international standards and practices for mycotoxin exposure in food, mycotoxins contamination is still a worldwide concern for food safety issue.

Under this situation, Elabsience® has developed high-quality testing kits to detect common mycotoxins for researchers and farmers, including ELISA kits and Lateral Flow Assay Kit(LFDs)/Rapid test kits.



## E-TO-E

- Enzyme-Linked Immunosorbent Assay
- Quantitative analysis
- Highly sensitive
- Economic and Efficient




## E-TO-C

- Lateral flow assay
- Qualitative analysis
- Fast and Reliable
- Easy and On-site



Target	Sample type	Size	Reaction mode	Cat.No.
ELISA microtiter plates (Quantitative)				
Aflatoxin B1	Cereals,Corn skin,Wheat bran,Edible oil,Peanut, Biscuits,Beer,Wine,Soy sauce,Vinegar	96T/96T*3	Incubation time:45min	E-TO-E008
	Traditional Chinese medicine	96T/96T*3	Incubation time:45min	E-TO-E027
Aflatoxin M1	Milk,Milk powder,Urine	96T/96T*3	Incubation time:45min	E-TO-E007
	Milk,Milk powder,Yogurt,Cheese,Single Cream	96T/96T*3	Incubation time:55min	E-TO-E018
Deoxynivalenol	Cereals,Feed,Corn skin,Wheat bran	96T/96T*3	Incubation time:75min	E-TO-E003
	Cereals,Feed	96T/96T*3	Incubation time:45min	E-TO-E011
	Cereals,Feed	96T/96T*3	Incubation time:35min	E-TO-E023
Ochratoxin A	Cereals,Feed	96T/96T*3	Incubation time:75min	E-TO-E001
	Cereals,Feed	96T/96T*3	Incubation time:75min	E-TO-E015
	Cereals,Feed	96T/96T*3	Incubation time:30min	E-TO-E021
T-2 Toxin	Beans,Corn,Oats,Peanuts,Feed	96T/96T*3	Incubation time:45min	E-TO-E004
	Cereals,Feed	96T/96T*3	Incubation time:20min	E-TO-E022
Total Aflatoxin	Cereals,Formula feed,Edible oil,Peanut,Biscuit,Beer,Wine,Soy sauce,Vinegar	96T/96T*3	Incubation time:45min	E-TO-E006
	Traditional Chinese medicine	96T/96T*3	Incubation time:45min	E-TO-E028
Zearalenone	Cereals,Feed,Corn skin,Wheat bran	96T/96T*3	Incubation time:45min	E-TO-E002
	Cereals,Feed	96T/96T*3	Incubation time:35min	E-TO-E025
Fumonisin	Cereals,Feed	96T/96T*3	Incubation time:15min	E-TO-E024
Fumonisin B1	Corn,Feed	96T/96T*3	Incubation time:45min	E-TO-E020

Target	Sample type	Size	Reaction mode	Cat.No.
Test strips (Qualitative)				
Aflatoxin B1	Cereals,Feed,Oil	20T/50T/80T	Incubation time:8min	E-TO-C001
	Cereals,Feed,Oil	20T/50T/80T	Incubation time:8min	E-TO-C006
Zearalenone	Cereals,Feed,Oil	20T/50T/80T	Incubation time:8min	E-TO-C002
Deoxynivalenol	Cereals,Feed,Oil	20T/50T/80T	Incubation time:8min	E-TO-C003
Total Aflatoxin	Cereals,Feed,Oil	20T/50T/80T	Incubation time:8min	E-TO-C005
Aflatoxin M1	Milk	20T/50T/80T	Incubation time:10min	E-TO-C009
Fumonisin B1	Cereals,Feed	20T/50T/80T	Incubation time:8min	E-TO-C010
Ochratoxin A	Cereals,Feed	20T/50T/80T	Incubation time:5min	E-TO-C011
T-2 Toxin	Cereals,Feed	20T/50T/80T	Incubation time:5min	E-TO-C012



## Residues & Contaminants

### Residues & Contaminants

Veterinary drugs are substances used to treat and prevent animals from disease, which also might enter the food chain through their occurrence as residues in food. Animals may also be exposed to a range of other chemicals such as chemical contaminants. Consumers can potentially be exposed to residues via consumption of food from animals treated with veterinary medicines or exposed to chemical contaminants. This includes liver, fish, shrimp, milk, eggs, honey, serum and cell supernatant.

In order to meet the strict regulations in place around the world regarding prohibited Contaminants and Residues limits, Elabsience® provides high-quality testing kits to detect veterinary residues and food contaminants for researchers and aquaculture, including ELISA kits and Lateral Flow Assay Kit (LFDs)/Rapid test kits.



## E-FS-C

- Lateral flow assay
- Qualitative analysis
- Fast and Reliable
- Easy and On-site



Target	Sample type	Size	Reaction mode	Cat.No.
Test strips (Qualitative)				
Nitrofurantoin	Honey, Muscle, Liver	20T/50T/80T	Incubation time: 8min	E-FS-C001
Nitrofurantoin	Honey, Muscle, Liver	20T/50T/80T	Incubation time: 8min	E-FS-C002
Nitrofurantoin	Honey, Muscle, Liver	20T/50T/80T	Incubation time: 8min	E-FS-C003
Nitrofurantoin	Honey, Muscle, Liver	20T/50T/80T	Incubation time: 8min	E-FS-C004
Clenbuterol	Urine, Muscle, Feed	20T/50T/80T	Incubation time: 8min	E-FS-C006
Ractopamine	Urine, Muscle, Feed	20T/50T/80T	Incubation time: 8min	E-FS-C008
Melamine	Raw milk, Milk	20T/50T/80T	Incubation time: 5min	E-FS-C009
Salbutamol	Urine, Muscle, Feed	20T/50T/80T	Incubation time: 8min	E-FS-C010
Phenylethanolamine A	Urine	20T/50T/80T	Incubation time: 8min	E-FS-C011
Clenbuterol-Ractopamine-Salbutamol	Muscle, Urine, Feed	20T/50T/80T	Incubation time: 8min	E-FS-C016
Chloramphenicol	Milk, Honey, Muscle, Egg	20T/50T/80T	Incubation time: 8min	E-FS-C026
Quinolones	Milk, Honey, Muscle, Egg	20T/50T/80T	Incubation time: 8min	E-FS-C027
	Muscle	20T/50T/80T	Incubation time: 8min	E-FS-C034
Sulfonamides	Muscle, Honey, Milk	20T/50T/80T	Incubation time: 8min	E-FS-C028
	Muscle	20T/50T/80T	Incubation time: 8min	E-FS-C033
Tetracyclines	Muscle, Honey, Egg	20T/50T/80T	Incubation time: 5min	E-FS-C030
	Milk	20T/50T/80T	Incubation time: 5min	E-FS-C031
Ciprofloxacin	Muscle, Honey, Egg, Milk	20T/50T/80T	Incubation time: 8min	E-FS-C035
Olaquinox Metabolites	Muscle	20T/50T/80T	Incubation time: 5min	E-FS-C039
Florfenicol	Egg, Muscle	20T/50T/80T	Incubation time: 5min	E-FS-C040
Malachite Green	Muscle, Water	20T/80T	Incubation time: 5min	E-FS-C050
Beta-lactam Antibiotic	Milk	20T/50T/80T	Incubation time: 10min	E-FS-C105
Beta-Lactamase	Milk	20T/40T/80T	Incubation time: 5min	E-FS-C106
Enrofloxacin	Muscle, Honey, Milk, Egg	20T/50T/80T	Incubation time: 8min	E-FS-C111
Ofloxacin	Muscle, Honey, Egg	20T/40T/80T	Incubation time: 8min	E-FS-C112
Pefloxacin	Muscle, Honey, Egg	20T/40T/80T	Incubation time: 8min	E-FS-C113
Ceftiofur Metabolite	Milk	20T/50T/80T	Incubation time: 10min	E-FS-C114
Oxytetracycline	Muscle, Liver	20T/40T/80T	Incubation time: 5min	E-FS-C115
Sulfamethazine	Muscle, Honey, Milk, Egg	20T/40T/80T	Incubation time: 8min	E-FS-C116
Sulfadiazine	Muscle, Liver	20T/40T/80T	Incubation time: 8min	E-FS-C117

## E-FS-E

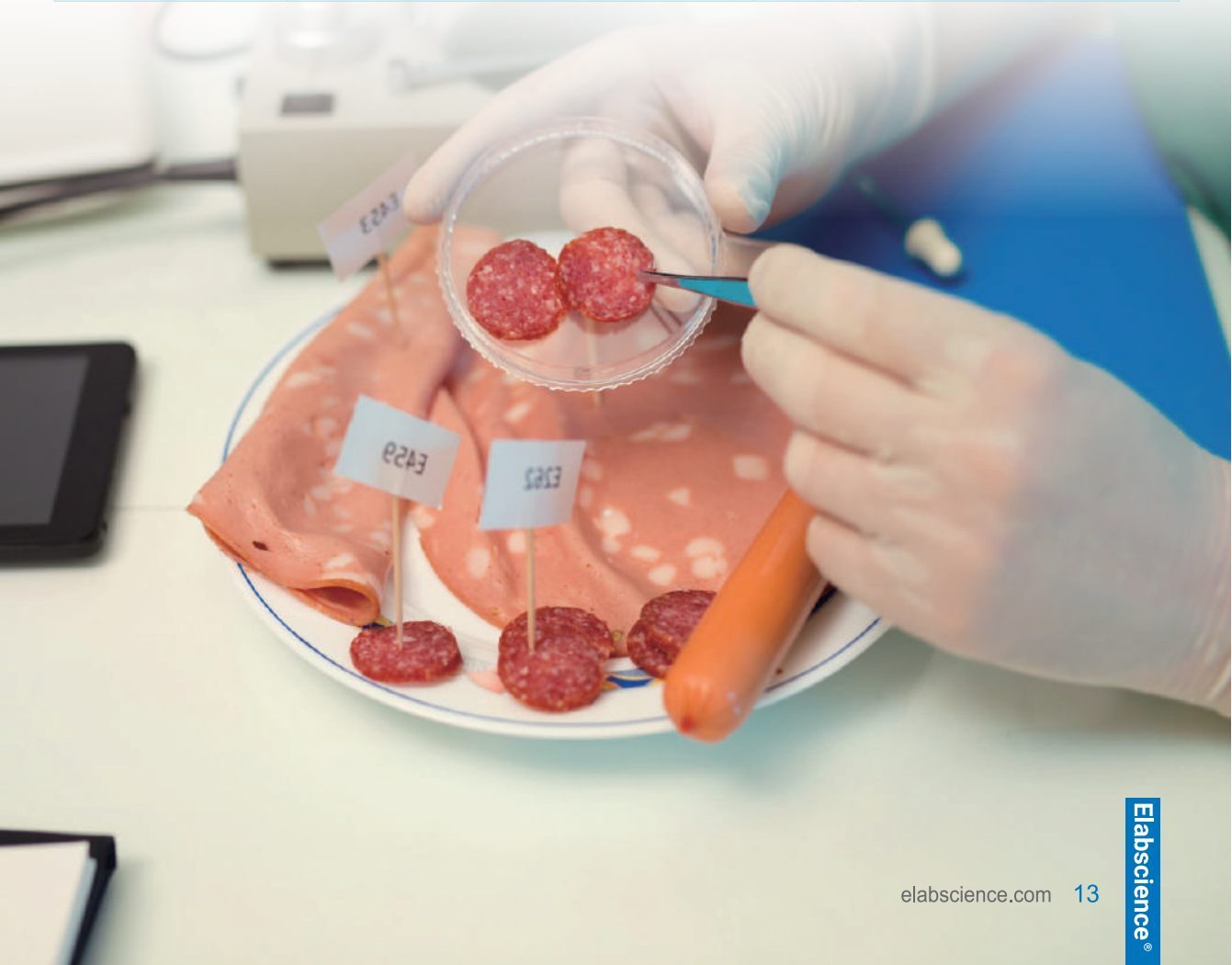
- Enzyme-Linked Immunosorbent Assay
- Quantitative analysis
- Highly sensitive
- Economic and Efficient



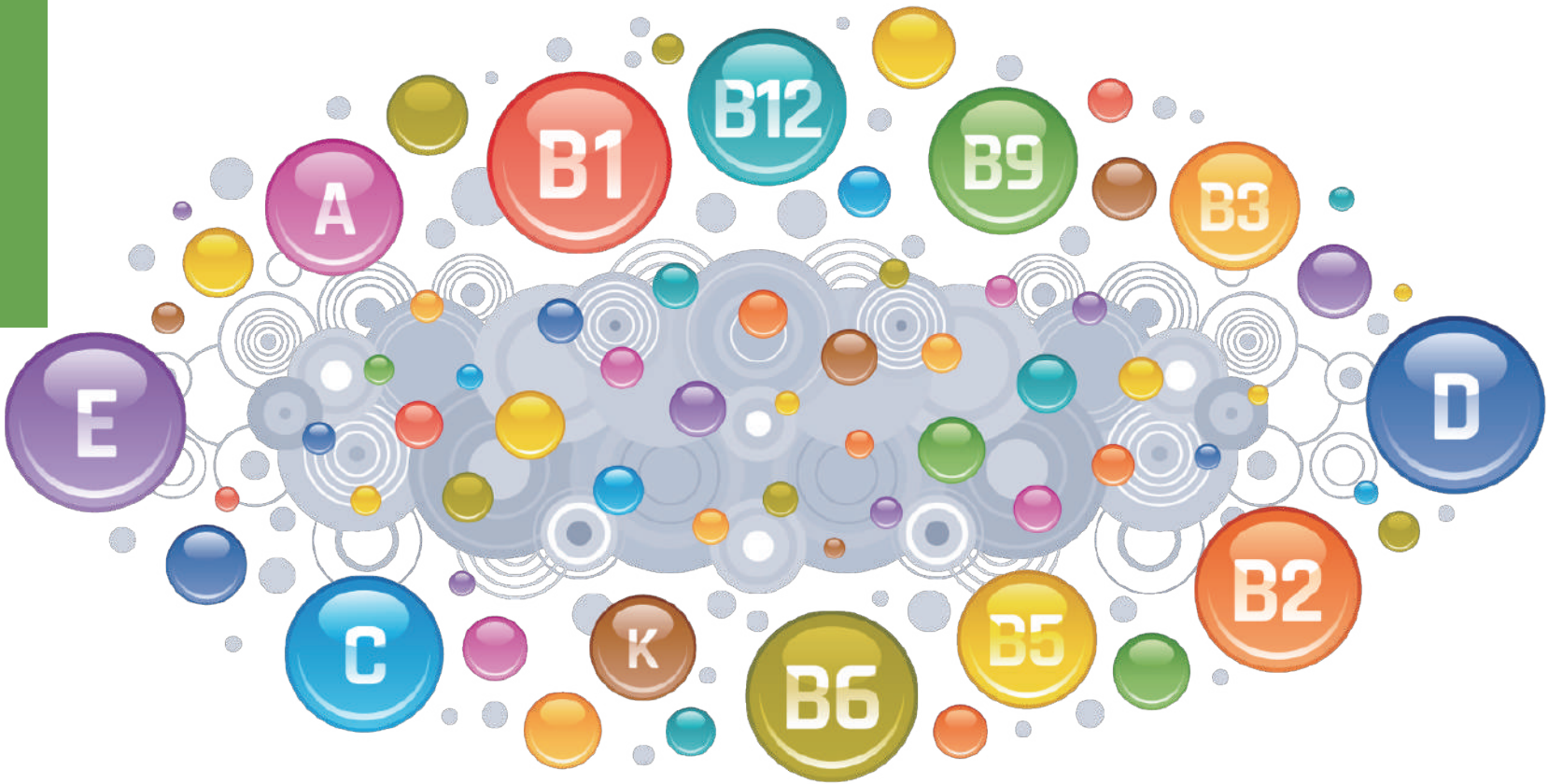
Target	Sample type	Size	Reaction mode	Cat.No.
ELISA microtiter plates (Quantitative)				
Phenylethanolamine A	Muscle, Urine, Feed	96T/96T*3	Incubation time: 45min	E-FS-E015
Sulfamethoxazole	Muscle, Honey, Serum, Urine, Egg, Milk, Feed	96T/96T*3	Incubation time: 60min	E-FS-E021
Abamectin	Raw milk, Finished milk, Yogurt	96T/96T*3	Incubation time: 75min	E-FS-E079
	Milk, Muscle, Liver	96T/96T*3	Incubation time: 55min	E-FS-E124
Amantadine	Muscle, Egg, Milk	96T/96T*3	Incubation time: 45min	E-FS-E085
Amoxicillin	Muscle, Raw Milk, Egg	96T/96T*3	Incubation time: 75min	E-FS-E077
Ampicillin	Muscle, Raw milk, Egg	96T/96T*3	Incubation time: 75min	E-FS-E080
Benzylpenicillin	Muscle, Milk, Egg	96T/96T*3	Incubation time: 75min	E-FS-E098
beta-agonist	Urine, Muscle, Serum	96T/96T*3	Incubation time: 45min	E-FS-E078
Beta-lactam Antibiotic	Muscle, Egg, Milk	96T/96T*3	Incubation time: 75min	E-FS-E065
Ceftiofur Metabolite	Muscle	96T/96T*3	Incubation time: 45min	E-FS-E092
Chloramphenicol	Muscle, Liver, Honey, Milk, Egg, Water, Urine, Serum, Feed, Milk powder	96T/96T*3	Incubation time: 75min	E-FS-E044
	Muscle, Honey, Finished milk, Milk powder, Yogurt, Ham sausage, Raw milk, Egg, Feed, Serum	96T/96T*3	Incubation time: 45min	E-FS-E106
	Milk, Milk powder, Cheese	96T/96T*3	Incubation time: 75min	E-FS-E113
Chlorpromazine	Muscle, Liver	96T/96T*3	Incubation time: 75min	E-FS-E096
Chlortetracycline	Muscle, Liver, Egg, Honey, Urine	96T/96T*3	Incubation time: 75min	E-FS-E024
	Muscle, Honey	96T/96T*3	Incubation time: 45min	E-FS-E111
Cimaterol	Muscle, Urine, Serum	96T/96T*3	Incubation time: 45min	E-FS-E026
Ciprofloxacin	Muscle, Honey, Milk, Egg, Milk powder	96T/96T*3	Incubation time: 60min	E-FS-E033
Clenbuterol	Muscle, Feed, Urine	96T/96T*3	Incubation time: 45min	E-FS-E025
Clorprenaline	Muscle, Serum, Urine	96T/96T*3	Incubation time: 45min	E-FS-E089
Colistin	Muscle, Urine, Egg	96T/96T*3	Incubation time: 45min	E-FS-E070
Dexamethasone	Muscle, Milk, Feed	96T/96T*3	Incubation time: 75min	E-FS-E009
Diazepam	Muscle, Urine, Feed	96T/96T*3	Incubation time: 75min	E-FS-E027
Diclazuril	Muscle	96T/96T*3	Incubation time: 45min	E-FS-E066
Diethylstilbestrol	Muscle, Liver	96T/96T*3	Incubation time: 75min	E-FS-E001
Doramectin	Raw milk, Finished milk, Yogurt	96T/96T*3	Incubation time: 75min	E-FS-E082
	Muscle, Liver	96T/96T*3	Incubation time: 75min	E-FS-E131
Doxycycline	Muscle, Raw milk, Egg, Feed	96T/96T*3	Incubation time: 45min	E-FS-E110
Enrofloxacin	Muscle, Honey, Milk, Milk powder, Egg.	96T/96T*3	Incubation time: 60min	E-FS-E032
	Muscle, Honey, Milk, Milk powder, Egg	96T/96T*3	Incubation time: 60min	E-FS-E056

Target	Sample type	Size	Reaction mode	Cat.No.
ELISA microtiter plates (Quantitative)				
Florfenicol	Muscle,Liver,Honey,Milk,Milk powder,Feed,Egg	96T/96T*3	Incubationtime:45min	E-FS-E062
Fluoroquinolones	Muscle,Honey,Milk,Milk powder,Egg,Urine	96T/96T*3	Incubationtime:60min	E-FS-E054
Gentamicin	Muscle,Milk,Egg	96T/96T*3	Incubationtime:45min	E-FS-E073
Ivermectin	Raw milk,Yogurt	96T/96T*3	Incubationtime:75min	E-FS-E130
Kanamycin	Muscle,Milk,Honey,Egg	96T/96T*3	Incubationtime:45min	E-FS-E087
Lincomycin	Muscle,Honey,Urine	96T/96T*3	Incubationtime:45min	E-FS-E061
	Muscle,Raw milk,Urine,Egg,Liver	96T/96T*3	Incubationtime:45min	E-FS-E095
Lomefloxacin	Muscle,Honey,Milk,Milk powder,Egg,Serum,Urine	96T/96T*3	Incubationtime:60min	E-FS-E128
Mabuterol	Muscle,Liver,Feed,Urine	96T/96T*3	Incubationtime:35min	E-FS-E135
MalachiteGreen	Muscle	96T/96T*3	Incubationtime:75min	E-FS-E013
Melamine	Milk powder,Milk,Muscle,Liver,Feed,Egg,Serum	96T/96T*3	Incubationtime:45min	E-FS-E010
	Milk,Yogurt,Cheese,Feed	96T/96T*3	Incubationtime:55min	E-FS-E109
Metronidazole	Muscle,Honey,Egg,Milk	96T/96T*3	Incubationtime:75min	E-FS-E011
Neomycin	Muscle,Milk,Egg	96T/96T*3	Incubationtime:45min	E-FS-E068
Nicarbizan	Muscle	96T/96T*3	ncubationtime:45min	E-FS-E120
Nitrofuranylaltadone	Muscle,Liver,Honey,Milk,Milk powder,Egg powder,Feed,Egg	96T/96T*3	Incubationtime:60min	E-FS-E002
Nitrofuranylurazolidone	Muscle,Liver,Honey,Milk,Milk powder,Egg powder,Feed,Egg	96T/96T*3	Incubationtime:60min	E-FS-E003
Nitrofurantoin	Muscle,Liver,Honey,Milk,Milk powder,Feed,Egg powder,Egg	96T/96T*3	Incubationtime:60min	E-FS-E004
Nitrofurazone	Muscle,liver,Honey,Milk,Milk powder,Egg powder,Feed,Egg	96T/96T*3	Incubationtime:60min	E-FS-E005
Nitroimidazoles	Muscle,Honey,Egg	96T/96T*3	Incubationtime:75min	E-FS-E035
Norfloxacin	Muscle,Honey,Milk,Milk powder,Egg,Serum,Urine	96T/96T*3	Incubationtime:60min	E-FS-E127
Ofloxacin	Muscle,Honey,Milk,Milk powder,Egg,Serum,Urine	96T/96T*3	Incubationtime:60min	E-FS-E129
Olaquinox	Muscle,Feed	96T/96T*3	Incubationtime:75min	E-FS-E007
OlaquinoxMetabolites	Muscle,Liver	96T/96T*3	Incubationtime:75min	E-FS-E008
Oxytetracycline	Muscle,Liver,Egg,Honey,Urine	96T/96T*3	Incubationtime:75min	E-FS-E094
	Muscle,Milk,Egg,Feed	96T/96T*3	Incubationtime:45min	E-FS-E112
Pentachlorophenol Sodium	Muscle,Feed	96T/96T*3	Incubationtime:45min	E-FS-E093
Quinolones	Muscle,Honey,Egg,Milk,Milk powder,Urine	96T/96T*3	Incubationtime:60min	E-FS-E034
Quinoxaline-2-carboxylicacid	Muscle,Egg,Liver,Milk	96T/96T*3	Incubationtime:45min	E-FS-E086
Ractopamine	Muscle,Liver,Feed,Urine	96T/96T*3	Incubationtime:45min	E-FS-E012
Ribavirin	Muscle,Egg,Milk	96T/96T*3	Incubationtime:45min	E-FS-E088
Salbutamol	Muscle,Urine,Feed,Liver	96T/96T*3	Incubationtime:45min	E-FS-E017
Sarafloxacin	Muscle,Honey,Milk,Milk powder,Egg,Urine	96T/96T*3	Incubationtime:60min	E-FS-E022
Spectinomycin	Muscle,Raw milk	96T/96T*3	Incubationtime:40min	E-FS-E081
Spiramycin	Muscle,Milk,Egg	96T/96T*3	Incubationtime:45min	E-FS-E101
Streptomycin	Muscle,Honey,Milk,Milk powder,Egg	96T/96T*3	Incubationtime:75min	E-FS-E031
SudanI	Tomato juice,Ketchup,Chilli sauce,Chilli powder,Feed,Egg	96T/96T*3	Incubationtime:75min	E-FS-E016
Sulfadiazine	Muscle,Serum,Urine,Honey,Milk,Egg,Water	96T/96T*3	Incubationtime:60min	E-FS-E114
Sulfamerazine	Muscle,Honey,Milk,Egg	96T/96T*3	Incubationtime:60min	E-FS-E115
Sulfamethazine	Muscle,Milk,Urine,Honey,Egg	96T/96T*3	Incubationtime:60min	E-FS-E043

Sulfametoxydiazine	Muscle,Serum,Urine,Honey,Milk,Egg	96T/96T*3	Incubationtime:60min	E-FS-E052
Sulfamonomethoxine	Muscle,Serum,Urine,Honey,Milk,Egg	96T/96T*3	Incubationtime:60min	E-FS-E051
Sulfaquinoxaline	Muscle,Serum,Urine,Honey,Milk,Feed,Egg	96T/96T*3	Incubationtime:60min	E-FS-E050
Sulfonamides	Muscle,Serum,Urine,Honey,Milk,Egg	96T/96T*3	Incubationtime:60min	E-FS-E049
	Muscle,Urine,Liver,Honey,Serum,Raw milk,Reconstituted milk,Finished milk,Egg,Feed	96T/96T*3	Incubationtime:45min	E-FS-E072
Tetracyclines	Muscle,Liver,Egg,Honey,Urine,Milk,Milk power	96T/96T*3	Incubationtime:75min	E-FS-E041
	Muscle,Liver,Egg,Honey,Urine,Milk,Milk powder	96T/96T*3	Incubationtime:75min	E-FS-E046
	Muscle,Egg,Liver,Feed,Raw milk,Finished milk	96T/96T*3	Incubationtime:50min	E-FS-E064
Thiamphenicol	Muscle,Egg,Milk,Urine	96T/96T*3	Incubationtime:45min	E-FS-E084
Tilmicosin	Muscle,Liver,Honey,Milk,Egg	96T/96T*3	Incubationtime:45min	E-FS-E063
Trimethoprim	Muscle,Feed,Kidney,Liver,Serum,Urine,Egg	96T/96T*3	Incubationtime:60min	E-FS-E020
	Muscle,Feed,Serum,Urine	96T/96T*3	Incubationtime:60min	E-FS-E023
	Muscle,Liver,Milk,Urine	96T/96T*3	Incubationtime:45min	E-FS-E104
Tylosin	Muscle,Honey,Milk,Egg	96T/96T*3	Incubationtime:75min	E-FS-E058
Zeranol	Milk,Yogurt	96T/96T*3	Incubationtime:55min	E-FS-E126
Erythromycin	Muscle,Raw milk,Egg,Urine,Serum	96T/96T*3	Incubationtime:75min	E-FS-E083
Estradiol	Muscle,Milk,Feed	96T/96T*3	Incubationtime:75min	E-FS-E117







**Vitamins**


Vitamins are essential nutrients for the growth, development, and maintenance of cells, tissues, and organs. Vitamins are classified as either water-soluble or fat-soluble. For humans, there are 13 vitamins: 4 fat-soluble (A, D, E, and K) and 9 water-soluble (8 B vitamins and vitamin C). These nutrients are typically obtained through the consumption of food or dietary supplements, which are subject to vitamin testing in order to meet specific labeling requirements. Food manufacturers, regulatory agencies and commercial laboratories should therefore have analytical methods on hand that allow them to quickly and easily determine the natural and additive vitamin in food.

Elabsience offers microbiological kit for the detection of the following vitamins: Biotin (Vitamin H or Vitamin B7), Folic acid and Vitamin B12.

**Microbiological tests**

- ☑ Samples with added or natural vitamin content can be analyzed
- ☑ Method in conformity with official guidelines (AOAC)
- ☑ Ready-to-use reagents for 96 determinations
- ☑ Results available within 24-48 hours



Target	Sample type	Size	Reaction mode	Cat.No.
Microbiological microtiter plates (Quantitative) 				
Biotin	Multivitamin juices, Fitness drinks, Cereals, Baby food, Flour	96T/96T*3	Incubation time:44h	E-FS-E138
Cyanocobalamin	Multivitamin juices, Fitness drinks, Cereals, Baby food, Flour	96T/96T*3	Incubation time:44h	E-FS-E139
Folic acid	Multivitamin juices, Fitness drinks, Cereals, Baby food, Flour	96T/96T*3	Incubation time:44h	E-FS-E140



## Microbiology

### Microbiology

All kinds of commodities are potentially at risk of contamination by spoiling microorganisms and pathogens. Therefore, Elabscience offers reliable kits for the analysis of meat and meat products, dairy products, egg and egg products, vegetables, fruits, herbs and spices, beverages, cereals and cereal products as well as prepared meals.

Well-established methods are used for both on-site testing, the classical microbiological testing or for specific detection by real-time PCR or ELISA are offered.

The application of rapid molecular methods is becoming increasingly important for microbiological laboratories. Reliable and particularly sensitive, real-time PCR is an important method in modern food analysis and delivers substantially faster results than the classical detection methods.





ELISA for the detection of Staphylococcal aureus Enterotoxin Total



- ✓ Enzyme-Linked Immunosorbent Assay
- ✓ Qualitative analysis
- ✓ Highly sensitive
- ✓ Economic and Efficient

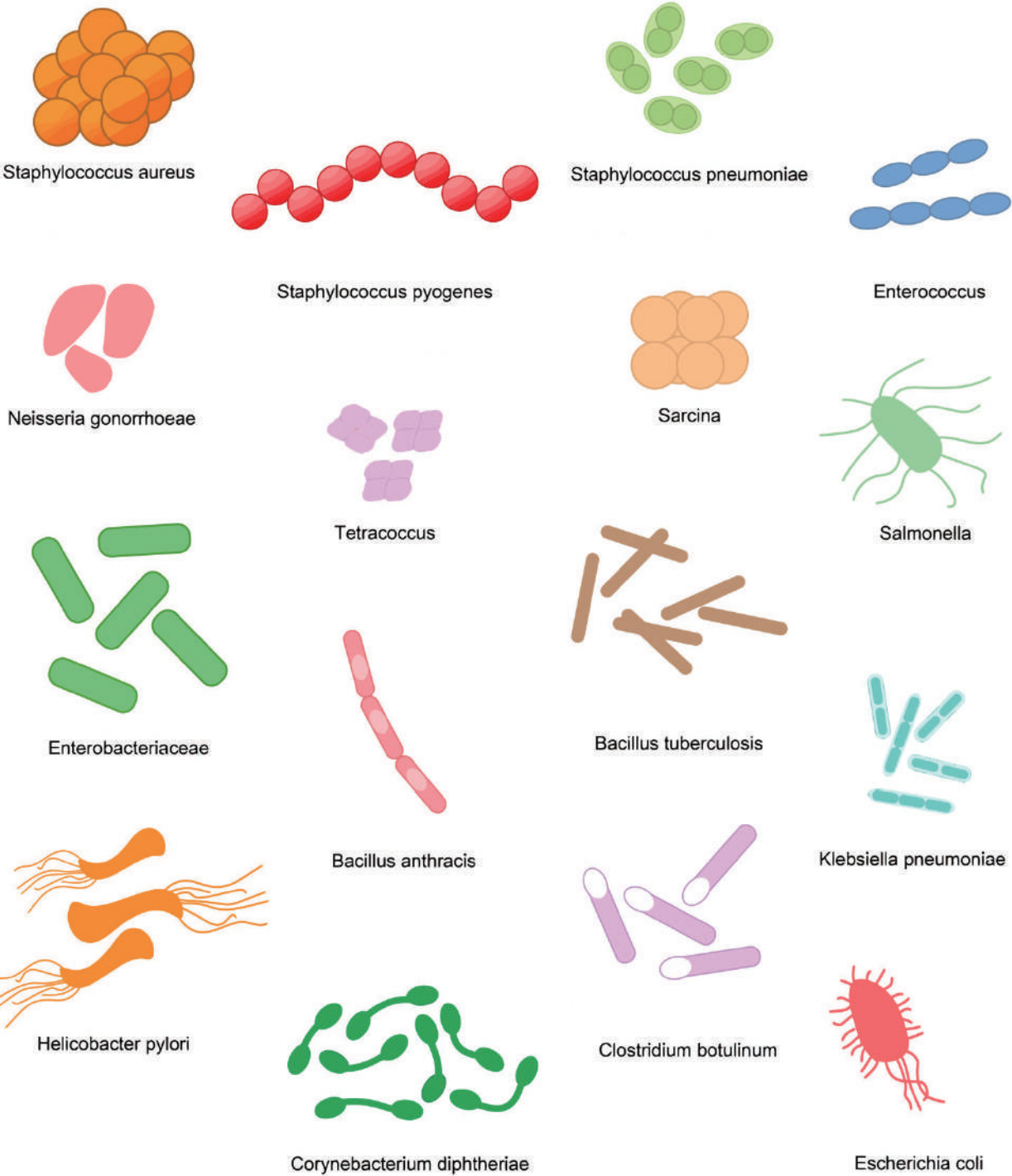


PCR for the detection of Salmonella

- ✓ Robust, stable target molecule (DNA) in highly processed food samples
- ✓ Highly specific assay with minimum tendency to cross reactions
- ✓ Standardized handling and test procedure (1-2 h)



Target	Sample type	Size	Reaction mode	Cat.No.
ELISA microtiter plates (Qualitative) 				
Staphylococcal aureus Enterotoxin Total	Milk,Yogurt, Milk powder	96T	Incubation time:120min	E-FS-E118
Real-time PCR(Qualitative) 				
Salmonella	Milk,Milk powder,Feed,Water,other food,etc	25T/50T	Incubation time:61.25min	E-FS-P004







## Food allergens

### Food allergens

Food allergens are proteins in food which can trigger allergic, sometimes even bring life threatening reactions in susceptible population. The extremely low allergen concentrations are sufficient to cause allergic symptoms. 90% of all food allergies are caused by the following 8 common food categories: milk, eggs, peanuts, fish, shellfish, tree nuts, wheat and soy.

Small traces of allergenic proteins in food can provoke allergic reactions in susceptible population. Therefore, monitoring of cross-contamination in raw material and production lines as well as correct labeling of food products are an important part of quality control in the food industry.

Many countries have similar legislation requiring food manufacturers to label products potentially containing allergens.

For food testing, there are different analytical methods: ELISA, LFDs and PCR. While ELISA and LFDs detect proteins, PCR detects the DNA of allergens. These methods are complementary and can be used for confirmation of screening results.



Real-time PCR

E-FS-P

- Robust, stable target molecule (DNA) in highly processed food samples
- Highly specific assay with minimum tendency to cross reactions
- Standardized handling and test procedure (1 - 2 h)



Target	Sample type	Size	Reaction mode	Cat.No.
Real-time PCR(Qualitative)				
Peanut	Cake,Candy,Ice cream	25T/50T	Incubation time:38.75min	E-FS-P003



EGGS



PEANUTS



SULPHITE



GLUTEN



SESAME



NUTS



CRUSTACEAN



FISH



MUSTARD



MILK



CELERY



SOYA



SHELLFISH



LUPINS

ELISA (enzyme-linked immunosorbent assay) is a plate-based assay technique designed for detecting and quantifying substances such as peptides, proteins, antibodies and hormones. Other names, such as enzyme immunoassay (EIA), are also used to describe the same technology. In an ELISA, an antigen must be immobilized on a solid surface and then complexed with an antibody that is linked to an enzyme. Detection is accomplished by assessing the conjugated enzyme activity via incubation with a substrate to produce a measureable product.



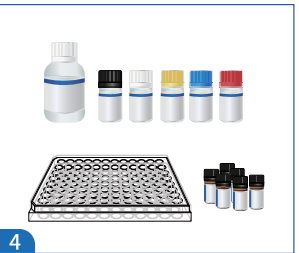
1 Weigh 4±0.05 g of homogenate sample into tube.



2 Add sample solution, shake and mix well.



3 After centrifugation and standing, take 50 µL of supernatant for analysis.



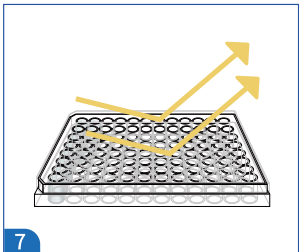
4 Restore all reagents and samples to room temperature (25 °C) before use.



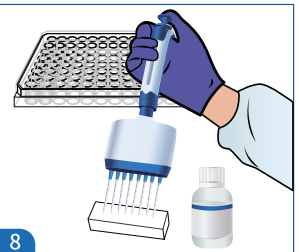
5 Number the sample and standard in order (multiple wells).



6 Add 50 µL of standard or sample.



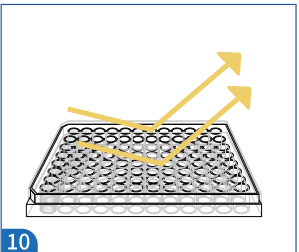
7 Incubate at 37 °C for 30 min with shading light.



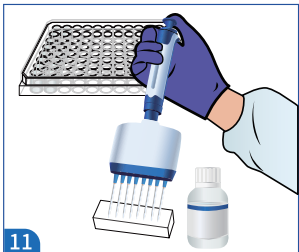
8 Add 300 µL of Wash Buffer to each well and wash.



9 Add 100 µL of HRP conjugate to each well.



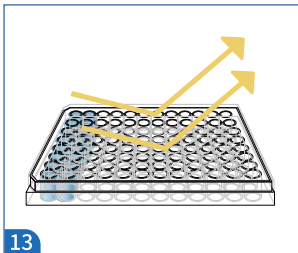
10 Incubate at 37 °C for 30 min with shading light.



11 Add 300 µL of Wash Buffer to each well and wash.



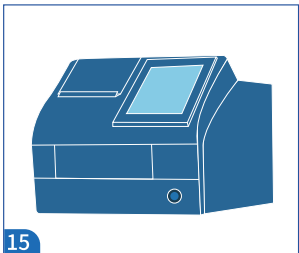
12 Add 100 µL of Substrate Reagent to each well.



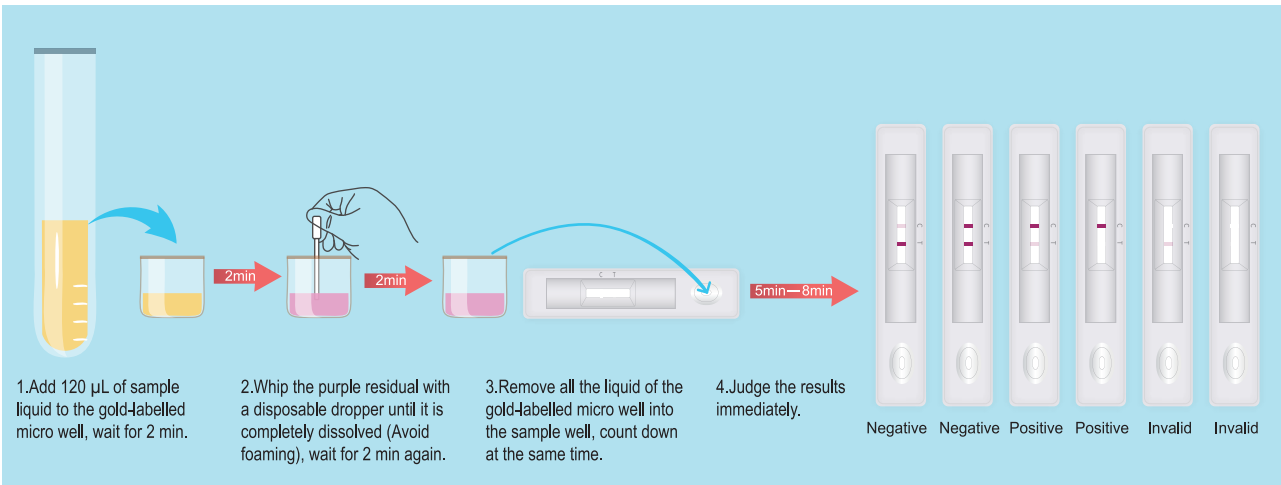
13 Incubate at 37 °C for 15 min with shading light.



14 Add 50 µL of Stop Solution to each well. Gently oscillate to mix thoroughly.



15 Determine the optical density (OD value) of each well at 450 nm (reference wavelength 630 nm) with a microplate reader.



LFDs (Lateral Flow Assay Kit), it is a simple to use diagnostic device used to confirm the presence or absence of a target analyte, such as pathogens or biomarkers in humans or animals, or contaminants in water supplies, foodstuffs, or animal feeds. LFAs typically contain a control line to confirm the test is working properly, along with one or more target or test lines. They are designed to incorporate intuitive user protocols and require minimal training to operate. LFDs use immunoassay technology using nitrocellulose membrane, coloured nanoparticles (or labels), and typically antibodies, to produce results.

When a sample is added, the sample will flow along the test device passing through the conjugate pad into the nitrocellulose membrane and then onto the absorbent pad. Labels will be chosen during lateral flow development depending on several factors such as the target, sample matrix and antibody. The optimisation of the assay will ensure the label interacts correctly with the antibody and antigen to ensure efficiency and accuracy of results. This is vital for achieving a successful transfer and scale-up into routine lateral flow manufacturing.

Using names such as rapid test or quick test can lead to myths about lateral flow devices that they are limited in their capability. However, lateral flow devices are compact, easy-to-use, and offer considerable flexibility. In addition, the developments in reader technology and advancements in raw materials, such as labels, means a lateral flow rapid test can match the sensitivity of an ELISA assay.