



*Committed to safeguarding
global food health*

Meizheng Bio-Tech

Company Overview

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01 Company Overview

PerkinElmer at A Glance

HEADQUARTERS: WALTHAM, MA

EIGHT DECADES OF INNOVATION

MEMBER OF THE S&P 500

OPERATIONS IN OVER 190 COUNTRIES

38%

THE AMERICAS

28%

EUROPE

34%

ASIA PACIFIC

GLOBAL TECHNOLOGY LEADER

14,000 EMPLOYEES

\$3.8 BILLION IN REVENUE

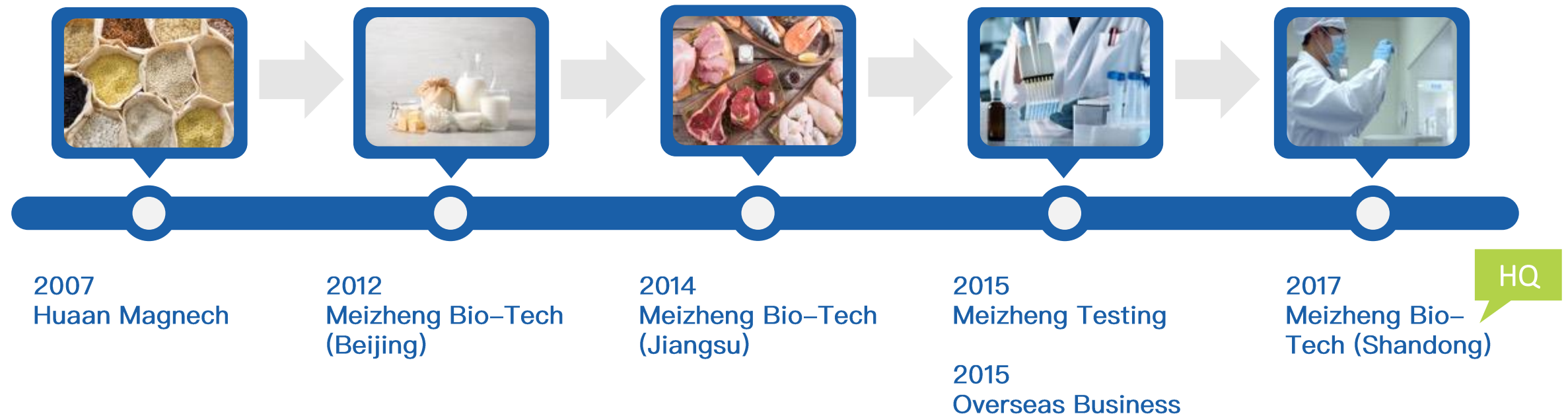
\$12.5 BILLION ENTERPRISE VALUE

en.meizhengbio.com

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Meizheng Milestones

Established in **2007**, Meizheng is one of the first Chinese companies to enter the food safety field.



In **2019**, Meizheng was incorporated into PerkinElmer and further expanded overseas network since then.

Meizheng in China



EVERY YEAR



We monitors the safety of
80 million tons of grain in China



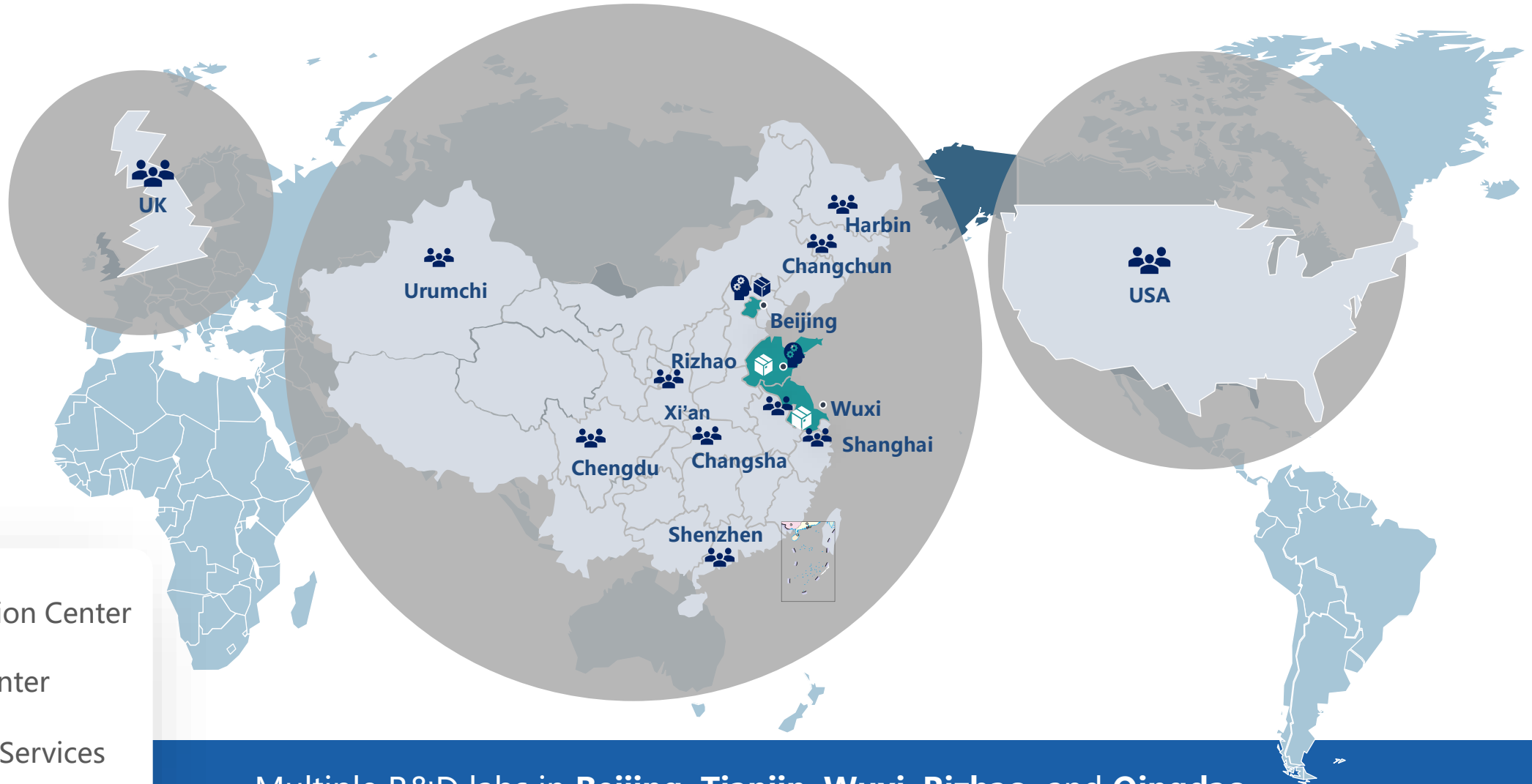
We monitors the safety and quality of
6 million tons of raw milk in China




We test the breeding and processing
procedures of
16 million tons of livestock,
poultry and seafood in China

**No. 1 Market Share
in China (Rapid Test)**

Global Footprint

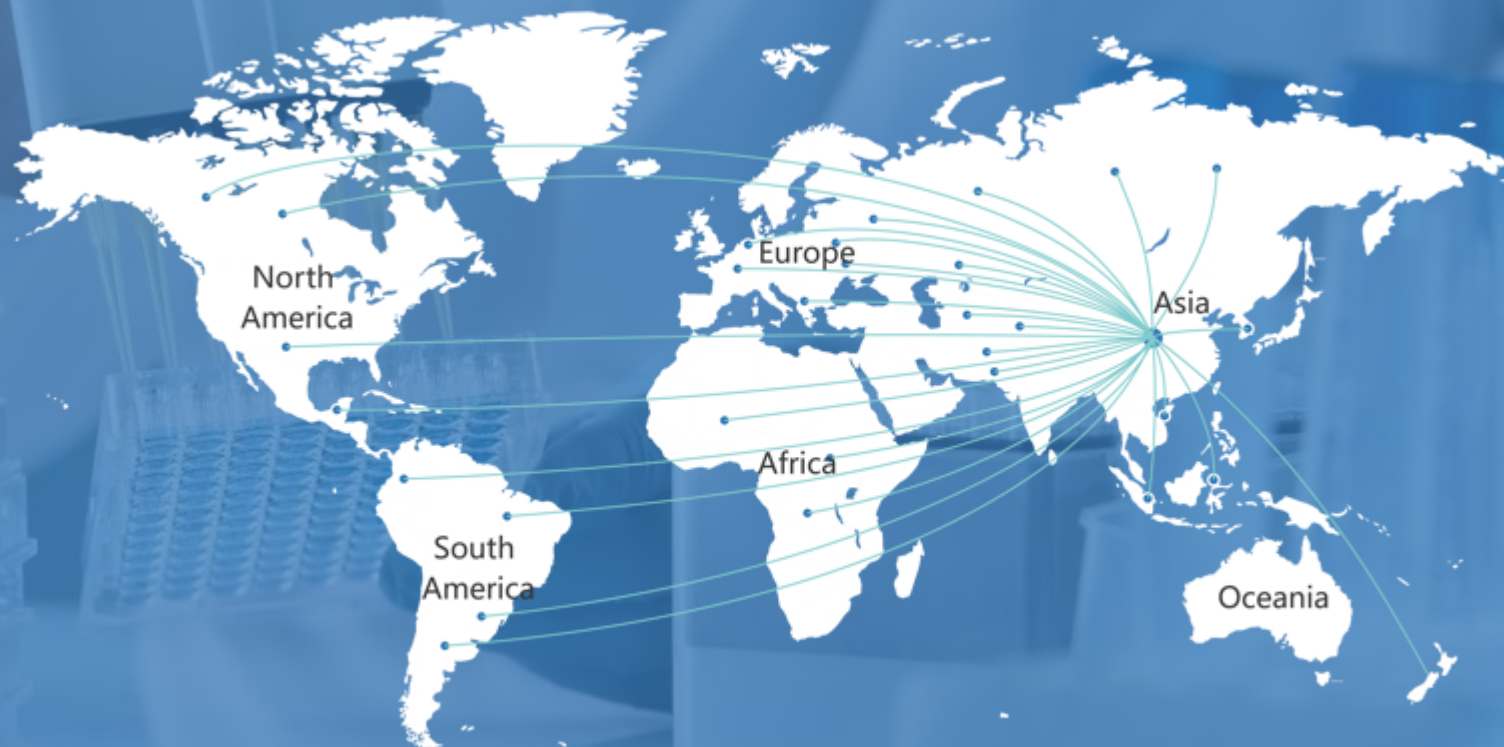


-  Production Center
-  R&D Center
-  Sales & Services

Multiple R&D labs in **Beijing, Tianjin, Wuxi, Rizhao, and Qingdao**
1 third-party testing lab, 4 plants, 5 tier 1 testing labs, 7 confirmatory labs

Overseas Sales Network

Provide test products and services in more than 50 countries



Expand to the overseas market since 2015

Sales network covers:

- ✓ **Asia:** India, Korea, Japan, Singapore, Vietnam, Thailand, Indonesia, Pakistan, etc.
- ✓ **CIS:** Russia, Belarus, Ukraine, Kazakhstan, etc.
- ✓ **ME:** Israel, The United Arab Emirates, etc.
- ✓ **EU:** UK, France, Italy, Germany, Turkey, etc.
- ✓ **North America:** U.S., Canada, Mexico.
- ✓ **LATAM:** Brazil, Argentina, Chile, Ecuador, etc.
- ✓ **Africa:** Tunisia, Nigeria, Egypt, Morocco, etc.

Validation & Certification:



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Scientific Research and Quality Management Input

- **5 R&D labs** in Beijing, Tianjin, Wuxi, Rizhao and Qingdao, one is accredited with **ISO17025**. Some products are accredited with **ISO17034** (i.e. certified RMP).
- **200+** Research staffs until 2022H1 with comprehensive background of **biology, chemistry, instruments and software**.
- Manufactured in compliance with **ISO9001** certified quality management system.



ISO Meizheng participated in the revision of OTA ISO 15141:2018 international standard

80 Patents and software certificates

8 Core technologies

20 Scientific research projects

Scientific Research and Quality Management Input



R&D lab

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Manufacture facilities



Logistic Management

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Technology & Service Platform

Provide integrated solutions from **Rapid Test** to **Confirmation**

 <p>Images showing various lateral flow test kits and a reader device.</p>	 <p>Images showing ELISA test kits, microplates, and a reader device.</p>	 <p>Images showing various test kits and two reader devices.</p>	 <p>Images showing microbiology test kits, a 'MICRO FAST' kit, and a reader device.</p>	 <p>Images showing various lab consumables, including pipette tips, tubes, and reagents.</p>	 <p>Images showing a computer monitor, a laboratory instrument, and a testing service platform.</p>
Lateral Flow Test Platform	ELISA Test Platform	Physicochemical Test Platform	Microbiology Test Platform	Lab Consumables Platform	Testing Service Platform

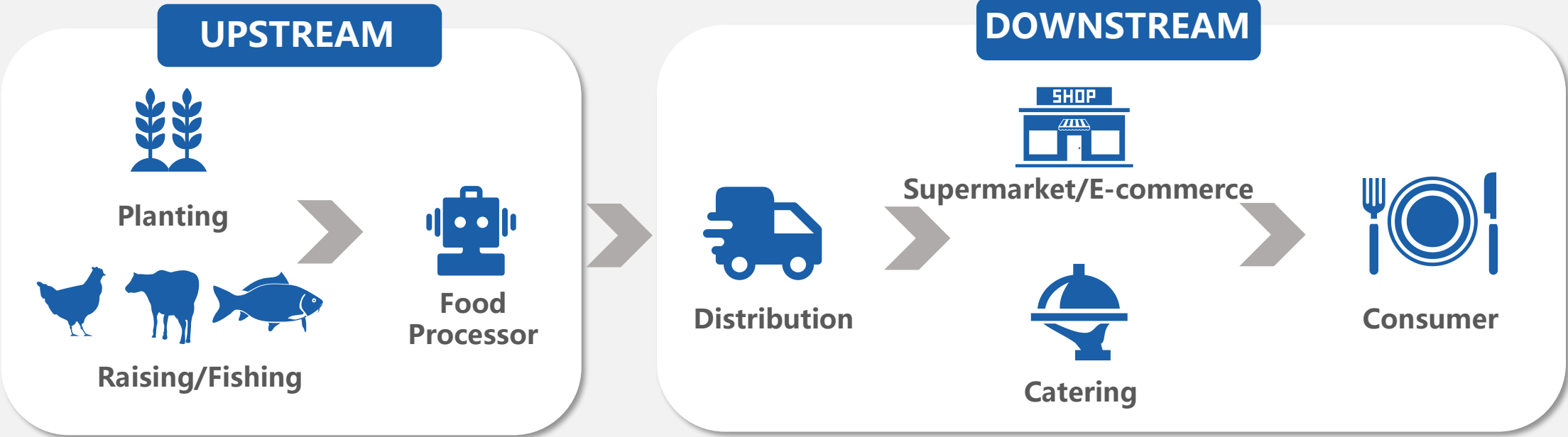
Validation Certificate/Report



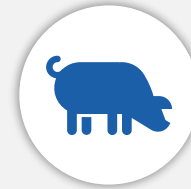
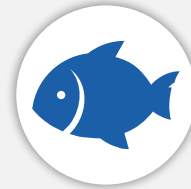
Multiple international and domestic validations, qualifications and certifications acquired.

Food Safety Integrated Solution

ENSURE EVERY LINK OF FOOD SAFETY FROM FARM TO TABLE !



Covering a Variety of Food Safety Areas



Items

Grain & Feed

Processed Food

Dairy

Seafood

Meat

Vegetable & Fruit

*Biotoxin
(mycotoxin, marine toxin, etc.)*



Microbiology



*Veterinary/Pesticides
Residue*



Unallowed Additives



Nutrients



Heavy Metal



Rapid Test Solution
Laboratory Test Solution

Three Business Segments



Food Safety Rapid Test



Microbiology Test



Laboratory Test



02 Food Safety Rapid Test

Industry



**Grain
Feed**

1



**Dairy
Honey**

2



**Meat Poultry
Seafood
Egg**

3

Meizheng can provide integrated test solution for clients in the field of **Grain & Feed**.

Offer an integrated solution from **Testing to Confirmation**



**Raw materials enter the barn/feed mill
On-site grain collection**

Simple operation
On-site detection



**Production monitoring/
Inventory monitoring**

High sensitivity
Batch processing



**Positive samples confirmation/
Supervision spot-check**

International standard method
Confirmatory test





Sufficient test items

- Covering 4 major indicators of grain safety: mycotoxins, heavy metals, pesticide residues and genetically modified organisms
- Covering 3 risk indicators of feed safety: mycotoxin, antibiotics and illegal addition



Numerous test samples

- Raw grain, finished grain, grain and oil products
- Feed raw materials, feed finished products

- **Secured** process
- **Convenient** operation
- **Accurate** results



Meizheng can provide instruments, reagents, technical services for users in the **dairy field**.



Keeping up with changes in international standards to adjust detection items of pesticide residues and veterinary drug residues, including ELISA kit and colloidal gold rapid detection strip.



A variety of nutrient detection solutions are provided for laboratory detection, making the detection more accurate and convenient.

Test items

- Contaminants - Heavy metals, nitrites...
- Mycotoxin - Aflatoxin M₁
- Microbes - Aerobic bacterial count...
- Pesticide residues - Carbendazim, imidacloprid...
- Veterinary drug residues - Antibiotics, hormones...
- Illegal additives--- Beta-enzymes, melamine...
- Nutrients - Lactoferrin, lactalbumin, vitamins, IgG, lactoperoxidase...

Feeding

The quality and safety of dairy products is controlled from the feed. The contamination of mycotoxins in the feed, especially AFB₁, directly affects the health of dairy cattle and the quality of dairy products.

[ToxinFast® Mycotoxin Test Kits](#) are suitable for daily monitoring of mycotoxins in feed factories and ranches.



Strict process control

Detection of dairy semi-finished products and finished products need quantitative test results, [various test kits and pretreatment column products](#) can meet the demand of users, be convenient for analysis and provide basis for decision-making.



Stock inspection in milk collection

On-site milk collection needs simple and easy-to-use detection products to quickly determine aflatoxin M1, drug residues, hormones, heavy metals, illegal addition, adulteration and other substances in fresh milk. [Colloidal gold Rapid Test Kits](#) can effectively solve these problems.



Food supply chain risk control

Hold the last pass of entering the dining table and provide efficient testing solutions for quality testing authority.



From farm to table, from feed to dairy products, from **rapid screening** to **accurate confirmation**, provide overall feed and dairy solutions.

Honey



MEIZHENG
a PerkinElmer company

Meizheng can provide rapid test solutions for users **in the honey field.**



Veterinary drug residues:
Nitrofurans\trimethoprim, quinolones,
sulfonamides, tetracyclines...



Pesticide residues: Carbendazim,
acetamiprid...

Lateral Flow Rapid Test Strip
ELISA Rapid Test Kit

Batch samples, more convenient operation and
more accurate results.

Meat/Poultry/Egg/Seafood



Meizheng can provide rapid test solutions for users **in the meat/poultry/seafood/egg field.**



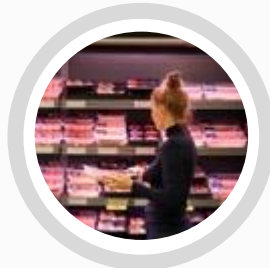
Raising/slaughter

Provide feed hygiene and safety detection in the breeding process and drug residue detection scheme in the breeding process or before slaughtering for **breeding/slaughtering enterprises**, to improve the product quality and safety in the breeding/slaughtering step.



Processing

Provide drug residue detection schemes for raw materials and finished products for **relevant processing enterprises**, so as to ensure product quality and safety during processing.



Supplying

Provide drug residue/illegal additives detection schemes for **supermarkets, restaurants, markets and government regulators** to ensure the quality and safety of products.

Rapid Test Kit (colloidal gold)



ELISA Test Kit Kit



In the field of seafood product detection, it can provide biotoxin test schemes such as tetrodotoxin, shellfish toxin and microcystin.

Key Products

Catalogue #	Products Name	Remarks
JC0056	Beta-lactams Rapid Test Kit	ILVO validated AOAC on-going
JC0084	Beta-lactams & Tetracyclines Combo Test Kit	ILVO validated AOAC on-going
JC0458	Beta-lactams & Tetracyclines & Sulfonamides Rapids Test Kit	ILVO validated AOAC on-going
JC0641	Beta-lactams & Tetracyclines & Cefalexin Rapid Test Kit	ILVO validated HS with Cefalexin AOAC on-going
JC0208	Beta-lactams & Tetracyclines & Chloramphenicol & Streptomycin Rapid Test Kit	ILVO on-going
JC0457	Beta-Lactams & Tetracyclines & Sulfonamides & Fluoroquinolones Rapid Test Kit	ILVO on-going
JC0842	Beta-lactams & Tetracyclines & Ceftiofur & Cefalexin Rapid Test Kit	ILVO on-going HS with Ceftiofur & Cefalexin
JC0874	Aflatoxin M1 Qualitative Rapid Test Kit	Dual LODs Meet EU MRL
JC0282	Melamine Rapid Test Kit	Featured Product Illegal Additives
JC0187	Goat Milk Adulteration Rapid Test Kit	Featured Product Adulteration
ME30AER	Ractopamine ELISA Test Kit	AOAC on-going

Key Products

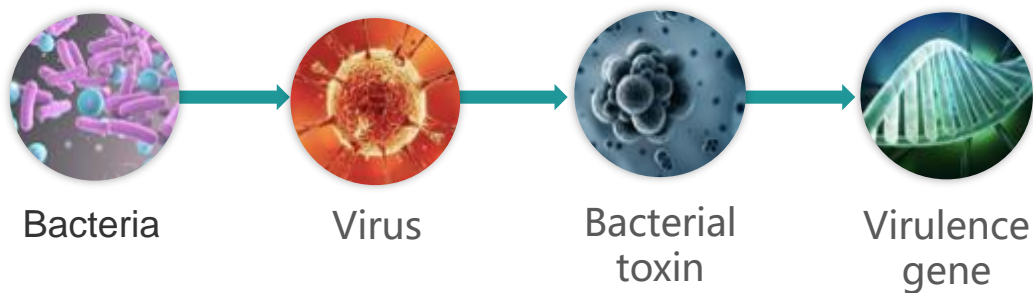
Catalogue #	Products Name	Remarks
LR50501	Staphylococcus aureus Enterotoxin ELISA Test Kit	AOAC on-going Comply with EU sample pre-treatment method
WC0006	DASH Test Kit	AOAC on-going High-throughput Can detect 60 antibiotics in raw milk at a time. Specially for a large volume on-site screening for farmers.
HEM1796	Zearalenone ELISA Test Kit	AOAC on-going Fast reaction time with 20 minutes
HEM1896	Deoxynivalenol ELISA Test Kit	AOAC on-going Fast reaction time with 20 minutes
HEM2596	Aflatoxin B1 ELISA Test Kit	HS with variety formula food matrix, such as milk powder, rice flour, etc.
ME01AER	Chloramphenicol ELISA Test Kit	Various samples including meat, liver, eggs and seafood High sensitivity High sales in APEC and India
ME03AER	Furazolidone Metabolite ELISA Test Kit	
ME04AER	Furaltadone Metabolite ELISA Test Kit	
ME05AER	Furacilin Metabolite ELISA Test Kit	
ME06AER	Furantoin Metabolite ELISA Test Kit	



03 Microbiology Test

Meizheng can provide professional overall solutions for microbiology test for users.

Meizheng have been focusing on the research of rapid test and identification technology of **microorganisms and their pathogenic factors**, and have established rapid culture platform, immunoassay platform and molecular biology technology platform.



The **application areas** include:
Ranch, food processing and catering, as well as regulatory and scientific research institutions.



Ranch



Food processing



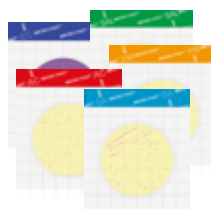
Restaurant



Supermarket &
Convenience store



Rapid enrichment media



Microbial count plate



Colloidal gold rapid test cassette



Real time PCR kits



ATP hygiene monitoring system



Real time PCR kits and thermal cycler

Pre-enrichment

Rapid screening

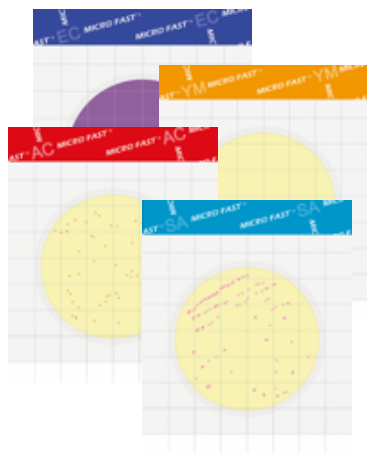
Confirmation/Identification

Comprehensive microbiology testing solution enables detection of microbial contamination in the various food matrix

Pre-enrichment

Rapid screening

Confirmation/Identification



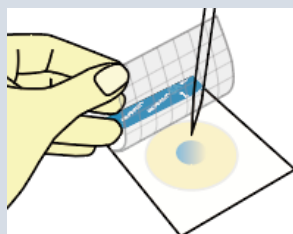
MicroFast® Microbial Count Plates deliver cost, time and space savings over traditional agar-based methods, while providing a cost effective, more sustainable alternative.

AOAC-PTM certificates acquired.

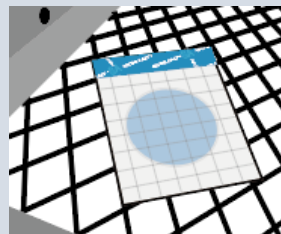


Count Plate Reader
Coming Soon!

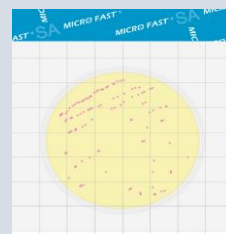
3 steps
procedure



Add sample



Culture



Interpret

Pre-enrichment

ATP Intelligent Hygiene Monitoring System



Rapid screening

PureTrust™ Intelligent Fluorescence Detector is a widely used indicator of environment hygiene. Hygiene monitoring through ATP detection can quickly obtain results and take immediate actions.

PureTrust™ Intelligent Fluorescence Detector has obtained CE certification.



- PureTrust™ Surface Swab
- Pre-moistened and ready to use

Confirmation/Identification



Pre-enrichment

Rapid screening

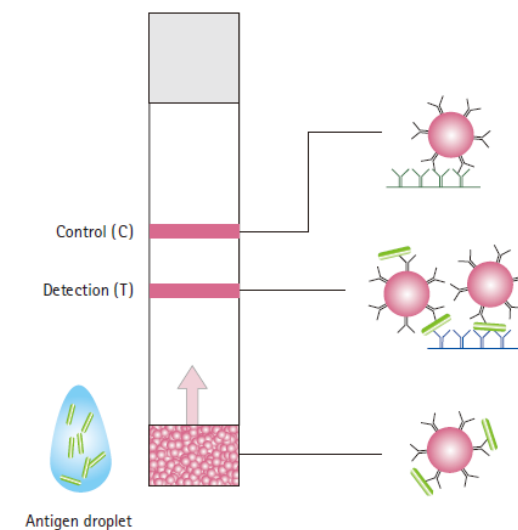
Confirmation/Identification

MicroFast Rapid Test Cassette (lateral flow) is designed to detect the pathogen in meat and dairy products, seafood and vegetable products, eggs, feedstuffs, as well as environmental samples.



8 minutes for detection
Simple Interpretation
Stable Performance

Principle



Pre-enrichment

Rapid screening

Confirmation/Identification



- MicroFast® Real Time PCR Kit are dried for optimal simplicity of use and uniformity of results.
- Pre-packed lysis buffer and premixed solution are provided. No extra reagents required.

MicroFast® Real Time PCR provides specific primers and probes. PCR amplification is detected by Taqmanprobe which is degraded during PCR process and releases fluorophore. The PCR instrument generates the amplification curve according to the fluorescence signal intensity and qualitatively detect the target pathogens in the sample.

AOAC validation of MicroFast® Real Time PCR Kit is in process.

96-well PCR Thermal Cycler
Coming Soon!



Key Products

Microbial count plate

Catalogue #	Product Name
LR1001	MicroFast [®] Aerobic Count Plate
LR1002	MicroFast [®] Coliform Count Plate
LR1003	MicroFast [®] Yeast & Mold Count Plate
LR1005	MicroFast [®] Staphylococcus aureus Count Plate
LR1007	MicroFast [®] Coliform & E.coli Count Plate
LR1011	MicroFast [®] Enterobacteriaceae Count Plate

ATP hygiene monitoring system

Catalogue#	Products Name
PTS100	PureTrust [™] Surface Swab
MF1000Premium	PureTrust [™] Intelligent Fluorescence Detector

Real time PCR kits

Catalogue#	Products Name
LR70401F	MicroFast [®] Enterobacter sakazakii Real Time PCR kit
LR70601F	MicroFast [®] Salmonella Real Time PCR kit
LR707H1F	MicroFast [®] STEC Real Time PCR Kit

Rapid test cassette

Catalogue #	Products Name
LR20501	MicroFast [®] Staphylococcus aureus Rapid Test Cassette
LR20601	MicroFast [®] Salmonella Rapid Test Cassette
LR20701	MicroFast [®] E.coli O157 Rapid Test Cassette
LR20801	MicroFast [®] Listeria Rapid Test Cassette



04 Laboratory Test

Laboratory Test

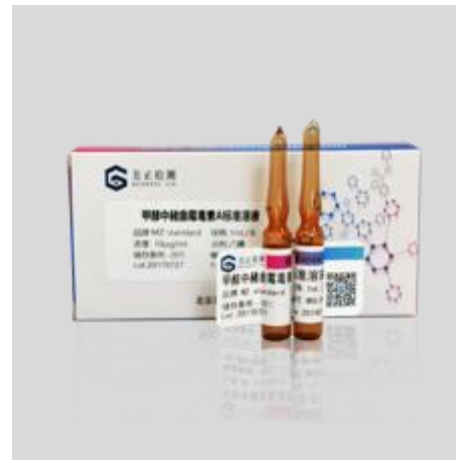
Provide high-quality reference materials, quality control materials, sample pretreatment instruments and consumables for laboratorian.

Combine products and services to provide total solutions for our customers based on the third-party testing service platform.



Pre-treatment consumables & equipment

A wide range of pre-treatment consumables and equipment supports laboratorians in improving work efficiency and reducing experimental errors.



Reference Standards & Quality Control Materials

The high-quality reference standards and quality control materials are accurate to determine the value. The products pass the verification of homogeneity and stability to guarantee the quality.



Third-party testing service

Professional laboratory testing platform can provide better technical support for customers, and accurate testing technology can guarantee the high quality of products.

Laboratory Test Products

Sample preparation Consumables



Immunoaffinity Column (IAC)



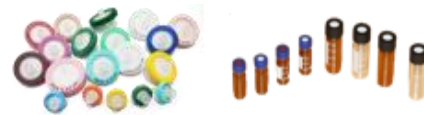
QuEChERS

Solid phase extraction (SPE) column

HPLC columns



Accessories



Membranes

Vials

Pre-treatment Instrument



**ASPE 480
Immunoaffinity and
Solid Phase Extract system**

Reference Materials



Solid reference materials

**Liquid reference materials
(single&mixed)**



Matrix reference materials



Quality control materials

Third-party Detection Platform



Meizheng has established a high standard third-party testing physical and chemical laboratory, chromatography laboratory and spectrum laboratory, and has passed the CNAS laboratory accreditation and CMA qualification, ensuring the scientificity and accuracy of the test results.



Mycotoxins detection

Grain, feed

Heavy metal detection

Grain, oil and seafood

Pesticide and veterinary residues detection

Vegetables, fruits, grain and oil, feed, meat, eggs, seafood and dairy products

Nutrients detection

Dairy products

Toxic and hazardous substances detection

Vegetables, fruits, grain and oil, feed, meat, eggs, seafood and dairy products

General component analysis

Grain and oil, dairy products

Key Products - ASPE480



ASPE480 Immunoaffinity & Solid Phase Extraction System is a multifunctional pre-treatment instrument which can use immunoaffinity chromatography and solid phase extraction, achieving automatic process to remove cap, condition, load, wash and elute.

CE Certification









Key Products - IAC

Catalogue Number	Product Name	Product Properties	Specs	Matrix
HCM0125B	IAC for Aflatoxins B1,B2,G1,G2	300ng	3mL,25T	Grain and oil, nuts, feed, herbs, tea, condiments, dairy products, etc.
HCM0225B	IAC for Aflatoxins Total B1,B2,G1,G2,M1,M2	AFT B1/B2/G1/G2 300ng, AFT M1 100ng, AFT M2 100ng	3mL,25T	Grain and oil, nuts, feed, herbs, tea, condiments, dairy products, etc.
HCM0325B	IAC for Aflatoxin B1	300ng	3mL,25T	Grain, oil, feed, herbs, etc.
HCM0525B	IAC for Zearalenone	2000ng	3mL,25T	Grain, feed, etc
HCM0625B	IAC for Deoxynivalenol	2000ng	3mL,25T	Grain, oil, feed, alcohol, condiments, etc.
HCM3025B	IAC for Deoxynivalenols (DON/3-ADON/15-ADON)	DON 2000ng, 3-ADON 1000ng, 15-ADON 2000ng	3mL,25T	Grain, oil, feed, alcohol, condiments, etc.
HCM0725B	IAC for Ochratoxin A	100ng	3mL,25T	Grains, peanuts, feed, alcohol, condiments, herbs, etc.
HCM0825B	IAC for Fumonisin B1,B2,B3	5000ng	3mL,25T	Grain, oil, feed, etc
HCM0925B	IAC for T-2 Toxin	2500ng	3mL,25T	Grain, oil, feed, etc
HCM2025B	IAC for T-2,HT-2 Toxin	2000ng	3mL,25T	Grain, oil, feed, etc
HCM2125B	IAC for Citrinin	500ng	3mL,25T	Grain, red koji products, etc.
HCM2225B	IAC for Sterigmatocystin	600ng	3mL,25T	Grain, etc

Multiple-in-one Mycotoxins Immunoaffinity Columns
Various combination: 2 in 1, 3 in 1, 4 in 1, 5 in 1, 6 in 1

Key Products - Sample Preparation

QuEChERS

Extraction	Matrix		Clean up	
AOAC 2007.01				
AOAC 2007.01 -AOAC Method 6 g MgSO ₄ (anhydrous) ; 1.5 g NaAc P/N: CSQ0003	General fruit and vegetable		2 mL Centrifuge tube for 1 mL sample 50 mg PSA, 150 mg MgSO ₄ , P/N: CSQ0010 15 mL Centrifuge tube for 8 mL sample 400 mg PSA, 1200 mg MgSO ₄ , P/N: CSQ0011	
	Fruits and vegetables with fats and waxes		2 mL Centrifuge tube for 1 mL sample 50 mg PSA, 50 mg C18, 150 mg MgSO ₄ , P/N: CSQ0014 15 mL Centrifuge tube for 8 mL sample 400 mg PSA, 400 mg C18, 1200mg MgSO ₄ , P/N: CSQ0007	
	Pigmented fruits and vegetables		2 mL Centrifuge tube for 1 mL sample 50 mg PSA, 50 mg PC, 150 mg MgSO ₄ , P/N: CSQ0017 15 mL Centrifuge tube for 8 mL sample 400 mg PSA, 400 mg PC, 1200 mg MgSO ₄ , P/N: CSQ0018	
	EN 15662			
	EN 15662 -European and Mini-Multiresidue Method 4 g MgSO ₄ , 1 g NaCl, 1 g NaCitrate, 0.5 g disodium citrate sesquihydrate P/N: CSQ0029	General fruit and vegetable		2 mL Centrifuge tube for 1 mL sample 25 mg PSA, 150 mg MgSO ₄ (anhydrous), P/N: CSQ0013 15 mL Centrifuge tube for 6 mL sample 150 mg PSA, 900 mg MgSO ₄ (anhydrous), P/N: CSQ0012
		Fruits and vegetables with fats and waxes		2 mL Centrifuge tube for 1 mL sample 25 mg PSA, 25 mg C18, 150 mg MgSO ₄ (anhydrous) P/N: CSQ0016 15 mL Centrifuge tube for 6mL sample 150 mg PSA, 150 mg C18, 900 mg MgSO ₄ (anhydrous) P/N: CSQ0015
Pigmented fruits and vegetables			2 mL Centrifuge tube for 1 mL sample 25 mg PSA, 2.5 mg PC, 150 mg MgSO ₄ (anhydrous) P/N: CSQ0020 15 mL Centrifuge tube for 6 mL sample 150 mg PSA, 15 mg PC, 900 mg MgSO ₄ (anhydrous) P/N: CSQ0021	

SPE Column

Part No.	Product Name	Description	Specification
CSS0019	PolyPlus HLB	Hydrophilic-lipophilic balanced reversed phase sorbent	500mg/3mL, 50/PK
CSS0020	PolyPlus HLB	Hydrophilic-lipophilic balanced reversed phase sorbent	500mg/6mL, 30/PK
CSS0028	PolyPlus MAX	Mixed-mode anion exchange for acids	500mg/6mL, 30/PK
CSS0124	PolyPlus MAX	Mixed-mode anion exchange for acids	500mg/3mL, 50/PK
CSS0024	PolyPlus MCX	Mixed-mode cation exchange sorbent for bases	500mg/6mL, 30/PK
CSS0031	PolyPlus WAX	Weak anion exchange mixed-mode sorbent for strong acidic compounds	500mg/6mL, 30/PK
CSS0034	PolyPlus WCX	Weak cation exchange mixed-mode sorbent for strong basic compounds	500mg/6mL, 30/PK
CSS0148	PolyPlus HLB-2	Hydrophilic-lipophilic balanced reversed phase sorbent	500mg/3mL, 50/PK
CSS0149	PolyPlus HLB-2	Hydrophilic-lipophilic balanced reversed phase sorbent	500mg/6mL, 30/PK
CSS0157	PolyPlus MCX-2	Mixed-mode cation exchange sorbent for bases	500mg/6mL, 30/PK

Reference Customers





***Meizheng, Committed to Safeguarding Global Food Health,
Can Provide You Integrated Food Testing Solutions from Farm to Table!***



Thank You

For Your Time