TAAG

SPECIO CATALOG

KAi BASED PRODUCTS 2025

KAi™

Multiplex Power. Made Practical.

Introducing Kai™, AI-powered PCR development for high-efficiency, cost-effective solutions that deliver more with less.

TAAG AI TECH

KAi™

KAi combines a specialized PCR melting curve assay with AI-driven data analysis. During the PCR step, each microorganism produces a unique melting curve. KAi's advanced software interprets the shape of these curves to pinpoint which organism is present. As a result, dozens of different microorganisms can be accurately identified in a single PCR reaction, significantly increasing throughput and efficiency.

KAi™ is also integrated into our Specio™ kit line, enabling each Specio kit to detect dozens of microorganisms in a single PCR reaction. This AI-driven approach delivers higher throughput, increased accuracy, and a more streamlined workflow.

Boosts throughput, AI ensures precision

01 High Multiplex Capacity

Quickly detect multiple pathogens in one test, saving time and resources.

02 Enhanced Accuracy

AI-based curve analysis helps minimize false results by recognizing subtle differences between organisms.

03 Streamlined Workflow

Eliminates the need for multiple separate assays, reducing both processing time and overall costs.

Specio™ Kit line

Food safety testing often requires analyzing multiple pathogens separately, leading to extensive sample processing, multiple DNA extractions, and independent analyses. This traditional approach is time-consuming, costly, and inefficient, reducing overall laboratory productivity.

The Specio™ kit line, powered by KAi™ technology, transforms pathogen detection by enabling the identification of multiple microorganisms in a single PCR reaction. These kits utilizes AI-driven melting curve analysis to differentiate pathogens with high precision, significantly improving throughput while maintaining exceptional sensitivity and specificity. By consolidating pathogen testing into a streamlined workflow, Specio™ kits help laboratories achieve greater efficiency, accuracy, and cost savings.

KEY BENEFITS

- **Multiplex Detection**

Detects multiple pathogens in one reaction, eliminating the need for separate tests.

- **Cost and Time Efficiency**

Minimizes labor, reagent use, and testing time while ensuring reliable results.

- **Optimized Workflow**

Reduces hands-on processing time and increases lab productivity.

- **AI-Enhanced Accuracy**

KAi™ technology analyzes melting curves to distinguish organisms with high precision.

- **Complementary laboratory services**

- Microbiological baseline of your facilities to identify critical points.
- NGS services for pathogen traceability.

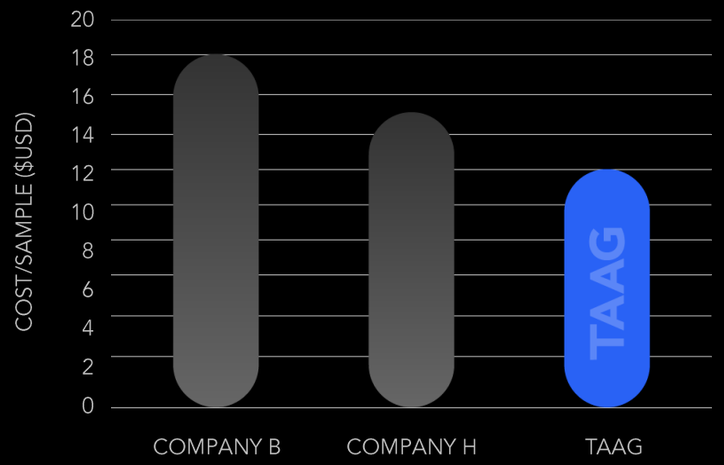
- **Specific validation in your matrices**

A kit certification on certain products doesn't guarantee it will work on yours. That's why we offer a free validation service on your specific products, ensuring that our kits deliver the most confident and accurate results possible in your unique matrices.

- **Easy and fast customization**

Do you need to identify more, less, or other pathogens? No problem, we can do this customization for you.

Price reagents for detecting 3 pathogens



Assuming an average reagent cost difference of $4 per sample and a personnel cost of $1.00 per reaction, processing 50 samples/day using Ampliora kits yields:

USD$100,000 SAVINGS PER YEAR

Simplified Equipment Requirements

Specio kits are compatible with standard thermocyclers using a single detection channel (FAM), avoiding the need for more specialized instrumentation.

Complementary laboratory testing: NGS and traceability

If any of the pathogens are detected in your sample, you can send it to one of our accredited laboratories for a complimentary Next-Generation Sequencing (NGS) analysis for traceability.

All Specio kits are compatible with Ai software TxA.

Pathogen qPCR kits (KAi technology)

Specio™ 2.4 E. coli and E. coli O157: H7

Download technical data sheet

ORDERING INFO

Catalog	Format
V-SF05	SPID 12 PCR strips 100 µL - 96 reactions

Product overview

Specio™ 2.4 E. coli and E. coli O157:H7 is a cutting-edge qPCR kit designed for the rapid and reliable detection of *E. coli* and *E. coli* O157:H7 in food products. These pathogens are critical for monitoring contamination risks and ensuring food safety. Leveraging Kai Technology, the kit utilizes a specialized PCR melting curve assay combined with AI-driven analysis to identify multiple pathogens in one test, significantly improving throughput and precision. Specio™ 2.4 E. coli and E. coli O157:H7 delivers accurate, timely pathogen detection, supporting food safety compliance and reducing health risks.

Targets

- *Escherichia coli*
- *Escherichia coli* O157:H7

Key features

- **High Multiplex Capacity:** Quickly detect multiple pathogens in one test, saving time and resources.
- **Enhanced Accuracy:** AI-based curve analysis helps minimize false results by recognizing subtle differences between organisms.
- **Streamlined Workflow:** Eliminates the need for multiple separate assays, reducing both processing time and overall costs.
- **Ready-to-Use Format:** Designed for ease of use with minimal analyst intervention—streamlined for efficiency.
- **Internal Control:** Every reaction includes an internal control to monitor PCR performance and ensure reliable results.

Applications

- Comprehensive pathogen detection for both food products and surfaces in manufacturing, processing, and packaging areas.
- Swift and dependable testing for E. coli and E. coli O157:H7 in finished products, raw materials, and production zones.
- A reliable tool for managing contamination risks across a variety of industries.

Related products

- Augmentis™ 14 Universal Gram Negative: Nutrient-rich culture medium formulated with multiple growth factors and optimized nutritional content to maximize the growth of gram-negative microorganisms.
- Nucleia™ 2 Tez-Q Plus: Efficient extraction kit for bacterial DNA, capturing PCR inhibitors, and providing high-quality samples ready for real-time PCR analysis

WORKFLOW

Sample	Sample collection	Enrichment	DNA extraction	Real-time PCR	Data analysis	Time to results
	TAAG Sample bags	Augmentis™ 14 Universal Gram Negative 24 ± 2 hours	Nucleia™ 2 Tez-Q Plus 40 mins.	Specio™ 2.4 E. coli and E. coli O157: H7 2.5 hours	TxA software	27 ± 2 hours

Pathogen qPCR kits (KAi technology)

TAAG F41 VIP

Download technical data sheet

ORDERING INFO

Catalog	Format
V-FF0 2-1	SPID 1 PCR plate 100 µL - 96 reactions
V-FF0 2-2	SPID 12 PCR strips 100 µL - 96 reactions
V-FF01-1	Tube format – 96 reactions

Product overview

TAAG F41 VIP is a qPCR kit designed for the rapid and precise detection of *S. aureus, L. monocytogenes, Salmonella* spp., and *E. coli* in food samples. These pathogens are critical indicators of foodborne illness, making early detection essential for food safety. Powered by Kai Technology, it combines a PCR melting curve assay with AI-driven data analysis, enabling the identification of multiple microorganisms in a single reaction, enhancing throughput and efficiency. TAAG F41 VIP offers fast, reliable pathogen detection, ensuring food safety and compliance with health regulations.

Targets

- *Escherichia coli*
- *Listeria monocytogenes*
- *Salmonella* spp.
- *Staphylococcus aureus*

Key features

- **Certified by AOAC:** by extension of license number 072101.
- **High Multiplex Capacity:** Quickly detect multiple pathogens in one test, saving time and resources.
- **Enhanced Accuracy:** AI-based curve analysis helps minimize false results by recognizing subtle differences between organisms.
- **Streamlined Workflow:** Eliminates the need for multiple separate assays, reducing both processing time and overall costs.
- **Ready-to-Use Format:** Designed for ease of use with minimal analyst intervention—streamlined for efficiency.
- **Internal Control:** Every reaction includes an internal control to monitor PCR performance and ensure reliable results.

Applications

- Complete pathogen detection for both food products and surfaces in manufacturing, processing, and packaging environments.
- Rapid identification of S. aureus, L. monocytogenes, Salmonella spp., and E. coli in finished products, raw materials, and production areas.
- A trusted solution for effective contamination risk management in multiple industries.

Related products

- Augmentis™ 1 Listeria: Selective dehydrated medium for growing Listeria spp. in food, beverage, and surface samples, ensuring accurate detection and safe product quality control.
- Augmentis™ 91 BPW: Medium for pre-enrichment of *Salmonella* and *E. coli* in food and environmental samples, enhancing pathogen detection efficiency, available in ready-to-use format.
- Nucleia™ 2 Tez-Q Plus: Efficient extraction kit for bacterial DNA, capturing PCR inhibitors, and providing high-quality samples ready for real-time PCR analysis.

WORKFLOW

Sample	Enrichment	DNA extraction	Real-time PCR	Data analysis	Time to results
Sample collection TAAG Sample bags	Augmentis™ 1 Listeria, and Augmentis™ 91 BPW 24 ± 2 hours	Nucleia™ 2 Tez-Q Plus 40 mins.	TAAG F41 VIP 2.5 hours	TxA software	27 ± 2 hours

Spoilage qPCR kits (KAi technology)

Specio™ 00.1 Bacteria

Download technical data sheet

ORDERING INFO

Catalog	Format
V-SF14	SPID 12 PCR strips 100 µL - 96 reactions

Product overview

Specio™ 00.1 Bacteria is an advanced qPCR kit designed for the detection and identification of over 80 deteriorative bacteria in beverages, juices, sauces, foods, and environmental samples post-sanitization. These bacteria can negatively affect product quality and safety, making their rapid detection crucial. Powered by Kai Technology combines a specialized PCR melting curve assay with AI-driven data analysis to accurately identify a wide range of bacterial species in a single test, enhancing throughput and efficiency. Specio™ 00.1 Bacteria ensures fast, reliable bacteria detection, supporting food safety and quality assurance.

Targets

- Over 80 spoilage bacteria

Key features

- **High Multiplex Capacity:** Quickly detect multiple pathogens in one test, saving time and resources.
- **Enhanced Accuracy:** AI-based curve analysis helps minimize false results by recognizing subtle differences between organisms.
- **Streamlined Workflow:** Eliminates the need for multiple separate assays, reducing both processing time and overall costs.
- **Ready-to-Use Format:** Designed for ease of use with minimal analyst intervention—streamlined for efficiency.
- **Internal Control:** Every reaction includes an internal control to monitor PCR performance and ensure reliable results.

Applications

- All Industries: Rapid and reliable detection of over 80 deteriorative bacteria in samples with low or zero microorganism count and post-sanitization surfaces across various industries. Ensures optimal product quality and safety through highly sensitive microbial analysis, verifying the effectiveness of sanitation processes.

Related products

- Augmentis™ 11 Universal Bacteria: Dehydrated enrichment broth supporting Gram-positive and Gram-negative bacteria growth, ideal for spoilage detection in food, beverages, surfaces, and environmental samples.
- Nucleia™ 2 Tez-Q Plus: Efficient extraction kit for bacterial DNA, capturing PCR inhibitors, and providing high-quality samples ready for real-time PCR analysis.
- Nucleia™ 3 Clean-Q: Three-step extraction method for bacteria and fungi, capturing PCR inhibitors and ensuring efficient extraction for real-time PCR analysis.

WORKFLOW

Sample	Enrichment	DNA extraction	Real-time PCR	Data analysis	Time to results
Sample collection TAAG Sample bags	Augmentis™ 11 Universal Bacteria 24 hours	Nucleia™ 3 Clean-Q 40 mins.	Specio™ 00.1 Bacteria 2.5 hours	TxA software	27 hours

Spolage qPCR kits (KAi technology)

Specio™ 00.2 Yeast & Mold

Download technical data sheet

ORDERING INFO

Catalog	Format
V-SF15	SPID 12 PCR strips 100 µL - 96 reactions

Product overview

Specio™ 00.2 Yeast & Mold is an advanced qPCR kit designed for the detection and identification of over 50 deteriorative yeasts and Mold in beverages, juices, sauces, foods, and environmental samples post-sanitization. These microorganisms can impact product quality and safety, making their early detection essential for maintaining standards. Powered by Kai Technology, combines a PCR melting curve assay with AI-driven data analysis to accurately identify a wide range of yeasts and Mold in a single test, optimizing throughput and efficiency. Specio™ 00.2 Yeast & Mold ensures rapid, reliable detection, supporting food safety and quality control.

Targets

- Over 50 spoilage yeast & Mold

Key features

- **High Multiplex Capacity:** Quickly detect multiple pathogens in one test, saving time and resources.
- **Enhanced Accuracy:** AI-based curve analysis helps minimize false results by recognizing subtle differences between organisms.
- **Streamlined Workflow:** Eliminates the need for multiple separate assays, reducing both processing time and overall costs.
- **Ready-to-Use Format:** Designed for ease of use with minimal analyst intervention—streamlined for efficiency.
- **Internal Control:** Every reaction includes an internal control to monitor PCR performance and ensure reliable results.

Applications

- All Industries: Rapid and reliable detection of over 80 deteriorative bacteria in samples with low or zero microorganism count and post-sanitization surfaces across various industries. Ensures optimal product quality and safety through highly sensitive microbial analysis, verifying the effectiveness of sanitation processes.

Related products

- Augmentis™ 21 Yeast & Mold: Enrichment broth promoting yeast and mold growth, ideal for spoilage microorganism detection in food, beverages, surfaces, and environmental samples.
- Nucleia™ 3 Clean-Q: Three-step extraction method for bacteria and fungi, capturing PCR inhibitors and ensuring efficient extraction for real-time PCR analysis.

WORKFLOW

Sample	Enrichment	DNA extraction	Real-time PCR	Data analysis	Time to results
Sample collection TAAG Sample bags	Augmentis™ 21 Yeast & Mold. 48 hours	Nucleia™ 3 Clean-Q, 40 mins.	Specio™ 00.2 yeast & Mold 2.5 hours	TxA software	51 hours

TAAG

SPECIO CATALOG

KAi BASED PRODUCTS 2025