



# FOOD SAFETY CONTROLS

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FOOD SAFETY QC MICROORGANISMS



[www.microbiologics.com](http://www.microbiologics.com)

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# ABOUT MICROBIOLOGICS

## MICROBIOLOGICS.COM

In support of our commitment to quality service, we have designed our website to be a helpful, easy-to-use resource for customers. The website is updated regularly and is the best place to obtain the most current information. Listed below are examples of the resources available:

- Digital catalog
- Product descriptions and applications
- End user registration
- Instructions for Use (multiple translations)
- Online ordering
- Contact Us form
- Order management
- Locate a distributor by country
- Safety Data Sheets (multiple translations)
- Customer & Technical Support documents
- Easy-to-use product and document search
- Frequently asked questions (FAQs)
- Certificates of Analysis

## CUSTOMER SERVICE

We take pride in providing you with exceptional customer service. Customer calls are answered by a team of experts ready to assist you with everything from account set up to placing an order.

All international customers should contact an authorized distributor for ordering information. Locate a distributor in your area by visiting [microbiologics.com](http://microbiologics.com). If an authorized distributor is not listed in your country, please contact Microbiologics Customer Service.

## TECHNICAL SUPPORT

Our team of experienced Technical Support experts are always eager to help customers use our product successfully. They can provide guidance for selecting the right strains and product formats for your unique testing needs, and help problem solve when issues arise in your lab.

Contact Customer Service	
Hours	7:30 a.m. - 5 p.m. (CST)
Phone	1.320.253.7400
US Toll Free	800.599.2847
Email	<a href="mailto:info@microbiologics.com">info@microbiologics.com</a>

Contact Technical Support	
Hours	8:00 a.m. - 5 p.m. (CST)
Phone	1.320.229.7045
US Toll Free	866.286.6691
Email	<a href="mailto:techsupport@microbiologics.com">techsupport@microbiologics.com</a>

## SAFE, SIMPLE, STABLE CONTROLS

Microbiologics products are compatible with a variety of instruments, kits and applications. Our independent external controls provide accurate, reliable results with convenient test-ready formats that save you time and money. Our controls offer easy and economical storage with no freezing required.

# CUSTOMER INFORMATION

## WORLDWIDE DISTRIBUTION

Our extensive distribution network allows us to reach every corner of the world, from Afghanistan to Zambia. We select distributors that are customer focused and demonstrate a commitment to our mission of providing the highest quality biomaterials for a safer, healthier world. Locate a distributor in your area by visiting [microbiologics.com](http://microbiologics.com).

## INTERNATIONAL CUSTOMERS

All international customers must contact an authorized distributor within their country to place an order. To search for distributors by country, visit [microbiologics.com](http://microbiologics.com). If an authorized distributor is not listed in your country, please contact Microbiologics Customer Service at [info@microbiologics.com](mailto:info@microbiologics.com) or + 1.320.253.7400

## U.S. CUSTOMERS

Customers located in the United States may purchase Microbiologics products directly or through an authorized distributor. Visit [microbiologics.com](http://microbiologics.com) to search for distributors in the United States. Orders can be placed online at [microbiologics.com](http://microbiologics.com) or by contacting Customer Service. Be prepared to provide the following information with your order:

- Customer account number
- Registration number
- Billing address
- Telephone number
- Email address
- Fax number
- Shipping address
- Purchase order number
- Credit card information
- Quantities
- Tax exemption information (certified exemption form must be kept on file)
- Microbiologics catalog number or reference culture numbers

Online orders can be placed at [microbiologics.com](http://microbiologics.com) by signing in on the homepage or clicking "Register" to create an account.

## PRODUCT WARRANTY

Microbiologics guarantees results when the product is stored, handled and used as directed (as per the expiration date, Microbiologics Recommended Growth Requirements, Illustrated Instructions and Instructions for Use). Please report concerns to Microbiologics Technical Support immediately. For more information, see the document titled Product Warranty and Product Replacement located at [microbiologics.com](http://microbiologics.com).

## END USER REGISTRATION

An authorized representative from your organization must agree to the terms of the End User Agreement in order to receive Microbiologics biological materials.

Registration can be completed at [microbiologics.com](http://microbiologics.com). Contact Customer Service at 1.320.253.7400 or [info@microbiologics.com](mailto:info@microbiologics.com) with questions about the End User Agreement.

# PRODUCTS FOR QUALITATIVE TESTING

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Easy ways to routinely test the presence or absence of specific pathogens or toxins.







# UV·BioTAG™

It's not uncommon for food samples to inadvertently become contaminated with control strains used in the laboratory. This leads to false-positive results which can have severe financial and regulatory implications. UV-BioTAG, our line of reference strains containing green fluorescent protein (GFP) markers integrated into the chromosome, make it easy to distinguish standard microorganism strains from laboratory control strains. Optimized for highly visible fluorescence, UV-BioTAG strains provide better stability because the GFP marker is integrated into the chromosome rather than the plasmid. With UV-BioTAG, you can quickly and reliably establish whether a positive test result can be traced back to a control strain cross-contamination issue, or if it is from another source.

## Highlights

- Accredited reference material under ISO 17034 standard
- Fluoresces under UV light to distinguish QC strains from other possible contaminants
- Instant dissolve pellet reduces preparation time
- Ready-to-use format saves time and money
- Refrigerated storage is easy and economical
- Online Certificate of Analysis provides detailed strain information
- Traceability to reference cultures ensures authenticity





## Package Details (two options):

- UV-BioTAG Swab: six all-in-one devices including a lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab
- UV-BioTAG Vial: six lyophilized microorganism pellets in glass vials

## Applications and Test Methods

- Enumeration methods
- Detection methods
- Demonstration of Capability (DOC)
- Media QC
- Validation and Verification
- FDA Bacteriological Analytical Manual Chapters 4, 4a, 5, 6, 8, 9, 10, 29
- USDA Microbiology Laboratory Guidebook Methods 5C.01 and 8.11

## Strains Available

- 01287UV *Cronobacter sakazakii* G-78 derived from FDA G-56
- 01227UV *Escherichia coli* (O157:H7) EC 43 derived from FDA ESC1177 (STEC)
- 01283UV *Klebsiella aerogenes* G-126 derived from FDA G-32
- 01271UV *Listeria innocua* (6a) modified from NCTC 11288
- 01249UV *Listeria monocytogenes* (1/2a) derived from FDA LS808
- 01248UV *Listeria monocytogenes* (1/2b) derived from FDA LS810
- 01250UV *Listeria monocytogenes* (4b) derived from FDA LS806
- 01279UV *Salmonella enterica* subsp. *enterica* serovar Abaetetuba SAL75 derived from FDA SAL72
- 01280UV *Salmonella enterica* subsp. *enterica* serovar Bispebjerg SAL89 derived from FDA SAL84
- 01278UV *Salmonella enterica* subsp. *enterica* serovar Gaminara SAL57 derived from FDA SAL5695
- 01230UV *Salmonella enterica* subsp. *enterica* serovar Mbandaka SAL58 derived from FDA SAL5696
- 01228UV *Salmonella enterica* subsp. *enterica* serovar Minnesota SAL60 derived from FDA SAL5698
- 01226UV *Salmonella enterica* subsp. *enterica* serovar Senftenberg SAL59 derived from FDA SAL5697
- 01277UV *Salmonella enterica* subsp. *enterica* serovar Typhimurium SAL46 derived from FDA SAL5693
- 01223UV *Salmonella enterica* subsp. *enterica* serovar Typhimurium SAL54 derived from FDA SAL5694
- 01282UV *Salmonella enterica* subsp. *enterica* serovar Nottingham SAL93 derived from FDA SAL87
- 01281UV *Salmonella enterica* subsp. *enterica* serovar Tranoroa SAL91 derived from FDA SAL86
- 01224UV *Shigella flexneri* SF84 derived from FDA SHI0552
- 01276UV *Shigella sonnei* SS61 derived from FDA SHI0551
- 01286UV *Vibrio cholerae* serovar O139 G-106 derived from FDA G-101
- 01285UV *Yersinia enterocolitica* G-79 derived from FDA G-39
- 01284UV *Yersinia enterocolitica* G-85 derived from FDA G-40



# *Lab-Elite*<sup>™</sup>

CERTIFIED REFERENCE MATERIAL

Increasing regulatory oversight in food, pharmaceutical and water industries has prompted many microbiology labs to seek accreditation to 17025:2017 standards. Our Lab-Elite CRM is designed to help those labs meet the requirements of Section 6.5.2(b) regarding reference material. Lab-Elite CRM microorganisms are just one passage from the reference culture and are delivered in our signature KWIK-STIK format. As a Certified Reference Material, Lab-Elite CRM comes with a comprehensive Certificate of Analysis detailing the strain's identity and characteristics.

## Highlights

- Certified reference material under ISO 17034 standard
- Qualitative QC microorganisms one passage from the reference strains for ultimate authenticity
- Ready-to-use format to save you time and money
- Refrigerated storage is easy and economical
- Traceability to reference cultures ensures authenticity



## Package Details

- One KWIK-STIK – All-in-one design includes a lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab
- Peel-off identification label
- Online Certificate of Analysis

## Applications and Test Methods

- ISO 17025:2017 laboratories requiring CRM
- Validation/Verification of processes and instruments
- Presence/Absence
- Identification methods

## Strains Available

- 0392-CRM *Aspergillus brasiliensis* derived from ATCC® 16404™\*\*
- 0998-CRM *Bacillus cereus* derived from ATCC® 10876™\*\*
- 0486-CRM *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*\*
- 0488-CRM *Burkholderia cepacia* derived from ATCC® 25416™\*\*
- 0121-CRM *Campylobacter coli* derived from ATCC® 43478™\*\*
- 0443-CRM *Candida albicans* derived from ATCC® 10231™\*\*
- 0318-CRM *Clostridium perfringens* derived from ATCC® 13124™\*\*
- 0317-CRM *Clostridium sporogenes* derived from ATCC® 19404™\*\*
- 0367-CRM *Enterococcus faecalis* derived from ATCC® 19433™\*\*
- 0795-CRM *Escherichia coli* (O157:H7) derived from ATCC® 43888™\*\*
- 0335-CRM *Escherichia coli* derived from ATCC® 25922™\*\*
- 0483-CRM *Escherichia coli* derived from ATCC® 8739™\*\*
- 0261-CRM *Klebsiella variicola* derived from ATCC® 31488™\*\*
- 0211-CRM *Legionella pneumophila* subsp. *pneumophila* derived from ATCC® 33152™\*\*
- 0815-CRM *Listeria ivanovii* subsp. *ivanovii* derived from ATCC® 19119™\*\*
- 0727-CRM *Listeria monocytogenes* derived from ATCC® 15313™\*\*
- 0484-CRM *Pseudomonas aeruginosa* derived from ATCC® 9027™\*\*
- 0363-CRM *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*\*
- 0262-CRM *Serratia marcescens* derived from ATCC® 43862™\*\*
- 0485-CRM *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*\*

See all 60+ Lab-Elite CRM strains at [www.microbiologics.com](http://www.microbiologics.com).

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Some laboratory applications require strains that are a few passages from the original reference culture. For those special instances, we offer KWIK-STIK Plus, which combines microorganisms that are just two passages from their reference strains, with our signature KWIK-STIK format. Each device features a qualitative lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab; so everything you need for growing control cultures is included in one handy device.

## Highlights

- Accredited reference material under ISO 17034 standard
- Designed for applications requiring strains that are fewer passages from the reference culture
- All-in-one design reduces the risk of contamination
- Ready-to-use format saves time and money
- Refrigerated storage is easy and economical
- Online Certificate of Analysis provides detailed strain information
- Traceability to reference cultures ensures authenticity



## Package Details

- User-friendly design with a lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab
- Pack of five STIKs
- Peel-off identification label on each STIK

## Applications and Test Methods

- Instrument validations
- Validation of neutralization methods
- Water tests
- Disinfectant qualification

## Strains Available

- 0392X *Aspergillus brasiliensis* derived from ATCC® 16404™\*
- 0998X *Bacillus cereus* derived from ATCC® 10876™\*
- 0486X *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*
- 0488X *Burkholderia cepacia* derived from ATCC® 25416™\*
- 0443X *Candida albicans* derived from ATCC® 10231™\*
- 0317X *Clostridium sporogenes* derived from ATCC® 19404™\*
- 0366X *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0335X *Escherichia coli* derived from ATCC® 25922™\*
- 0483X *Escherichia coli* derived from ATCC® 8739™\*
- 0871X *Geobacillus stearothermophilus* derived from ATCC® 7953™\*
- 0306X *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0688X *Kocuria rhizophila* derived from ATCC® 9341™\*
- 0687X *Listeria monocytogenes* derived from ATCC® 19115™\*
- 01110X *Methylobacterium extorquens* derived from ATCC® BAA-2500™\*
- 0484X *Pseudomonas aeruginosa* derived from ATCC® 9027™\*
- 0699X *Saccharomyces cerevisiae* derived from ATCC® 9763™\*
- 0363X *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*
- 0806X *Serratia marcescens* derived from ATCC® 14756™\*
- 0485X *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*
- 0385X *Streptococcus pyogenes* derived from ATCC® 19615™\*

See all 60+ KWIK-STIK™ Plus strains at [www.microbiologics.com](http://www.microbiologics.com).

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# KWIKSTIK™

Laboratories throughout the world have been praising the KWIK-STIK for decades. That's because its simple, all-inclusive design makes life easier for lab techs while reducing chances for errors. Each KWIK-STIK contains a qualitative lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab. Everything you need to grow reference cultures for QC testing is included in this one handy device. Available in packs of two or six, KWIK-STIKs are universally used for all types of microbiological control testing.

## Highlights

- Accredited reference material under ISO 17034 standard
- All-in-one design reduces the risk of contamination
- Strains are less than or equal to three passages from reference culture
- Ready-to-use format saves time and money
- Refrigerated storage is easy and economical
- Online Certificate of Analysis provides detailed strain information
- Traceability to reference cultures ensures authenticity



## Package Details

- User-friendly design with a lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab
- Packs of two or six

## Applications and Test Methods

- Culture purposes
- Daily QC
- Verification and Validation
- QC of Identification Systems and Assay Kits

## Strains Available

- 0392 *Aspergillus brasiliensis* derived from ATCC® 16404™\*
- 0330 *Bacillus cereus* derived from NCIMB 7464
- 0481 *Campylobacter jejuni* subsp. *jejuni* derived from ATCC® 33291™\*
- 0443 *Candida albicans* derived from ATCC® 10231™\*
- 0367 *Enterococcus faecalis* derived from ATCC® 19433™\*
- 0465 *Escherichia coli* derived from ATCC® 11775™\*
- 0335 *Escherichia coli* derived from ATCC® 25922™\*
- 0791 *Escherichia coli* derived from ATCC® 51813™\*
- 0483 *Escherichia coli* derived from ATCC® 8739™\*
- 0306 *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0261 *Klebsiella variicola* derived from ATCC® 31488™\*
- 0813 *Lactobacillus fermentum* derived from ATCC® 9338™\*
- 0414 *Listeria innocua* derived from NCTC 11288
- 0815 *Listeria ivanovii* subsp. *ivanovii* derived from ATCC® 19119™\*
- 0310 *Proteus mirabilis* derived from NCIMB 13283
- 0353 *Pseudomonas aeruginosa* derived from ATCC® 27853™\*
- 0484 *Pseudomonas aeruginosa* derived from ATCC® 9027™\*
- 0363 *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*
- 0485 *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*
- 0385 *Streptococcus pyogenes* derived from ATCC® 19615™\*

See all 680+ KWIK-STIK strains at [www.microbiologics.com](http://www.microbiologics.com).

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KWIK-STIKs are also available in QC Sets and Panels. We offer a wide range of bundled QC Sets and Panels for the most commonly used technologies and standards. Each set or panel contains the manufacturer-recommended quality control strains for a particular instrument or test method in a simple, ready-to-use format.



### Big 6 STEC QC Set (Catalog No. 5218P)

- 01098P *Escherichia coli* (O45:H2) derived from CDC 00-3039
- 01099P *Escherichia coli* (O121:H19) derived from CDC 02-3211
- 01100P *Escherichia coli* (O26:H11) derived from CDC 03-3014
- 01101P *Escherichia coli* (O103:H11) derived from CDC 06-3008
- 01102P *Escherichia coli* (O111:H8) derived from CDC 2010C-3114
- 01097P *Escherichia coli* (O145:NM) derived from CDC 99-3311

### Big 7 STEC QC Set (Catalog No. 5219P)

- 0617P *Escherichia coli* (O157:H7) derived from ATCC® 35150™\*
- 01098P *Escherichia coli* (O45:H2) derived from CDC 00-3039
- 01099P *Escherichia coli* (O121:H19) derived from CDC 02-3211
- 01100P *Escherichia coli* (O26:H11) derived from CDC 03-3014
- 01101P *Escherichia coli* (O103:H11) derived from CDC 06-3008
- 01102P *Escherichia coli* (O111:H8) derived from CDC 2010C-3114
- 01097P *Escherichia coli* (O145:NM) derived from CDC 99-3311

### Bruker MALDI Biotyper System Food Identification Panel (Catalog No. 5254P)

- 0229P *Citrobacter freundii* derived from ATCC® 43864™\*
- 0366P *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0128P *Lactobacillus sakei* subsp. *sakei* derived from ATCC® 15521™\*
- 0699P *Saccharomyces cerevisiae* derived from ATCC® 9763™\*
- 0605P *Staphylococcus xylosum* derived from ATCC® 29971™\*



## Bruker MALDI Biotyper System Food Pathogens Identification Panel (Catalog No. 5255P)

- 0481P *Campylobacter jejuni* subsp. *jejuni* derived from ATCC® 33291™\*
- 01088P *Cronobacter sakazakii* derived from ATCC® 29544™\*
- 0129P *Listeria monocytogenes* (4b) derived from ATCC® 13932™\*
- 0363P *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*

## Colilert QC Set (Catalog No. 5144P)

- 0465P *Escherichia coli* derived from ATCC® 11775™\*
- 0261P *Klebsiella variicola* derived from ATCC® 31488™\*
- 0416P *Pseudomonas aeruginosa* derived from ATCC® 10145™\*

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# LYFO·DISK™

It doesn't get much easier than this. Simply rehydrate LYFO DISK qualitative microorganism pellets with a diluent, such as phosphate buffer or saline, and you're ready to inoculate your culture media. LYFO DISK, packaged in a glass vial containing six pellets of a single strain, offers a ton of flexibility. It's an ideal solution for many quality control applications including presence/absence testing, microbial identification methods, antimicrobial susceptibility testing, media QC, water testing and more!

## Highlights

- Accredited reference material under ISO 17034 standard
- Easy to use – simply re-hydrate the pellet and inoculate
- Strains are less than or equal to three passages from reference culture
- Ready-to-use format saves time and money
- Refrigerated storage is easy and economical
- Online Certificate of Analysis provides detailed strain information
- Traceability to reference cultures ensures authenticity

## Package Details

- Vial of six qualitative lyophilized microorganism pellets

## Applications and Test Methods

- Culture purposes
- Media and reagent QC
- QC of microbial identification including biochemical, PCR and rapid molecular methods
- Water tests (e.g. enzyme substrates)
- Disinfectant studies
- Verification and Validation
- Proficiency tests
- Daily QC



## Strains Available

- 0263L *Aerococcus viridans* derived from ATCC® 10400™\*
- 0998L *Bacillus cereus* derived from ATCC® 10876™\*
- 0256L *Bacillus cereus* derived from ATCC® 11778™\*
- 0120L *Bacillus subtilis* subsp. *subtilis* derived from ATCC® 6051™\*
- 0121L *Campylobacter coli* derived from ATCC® 43478™\*
- 0111L *Campylobacter jejuni* subsp. *jejuni* derived from ATCC® 33560™\*
- 01088L *Cronobacter sakazakii* derived from ATCC® 29544™\*
- 0366L *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0795L *Escherichia coli* (O157:H7) derived from ATCC® 43888™\*
- 0335L *Escherichia coli* derived from ATCC® 25922™\*
- 0483L *Escherichia coli* derived from ATCC® 8739™\*
- 0871L *Geobacillus stearothermophilus* derived from ATCC® 7953™\*
- 0306L *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0211L *Legionella pneumophila* subsp. *pneumophila* derived from ATCC® 33152™\*
- 0277L *Listeria monocytogenes* derived from ATCC® 19111™\*
- 01190L *Listeria monocytogenes* derived from ATCC® 35152™\*
- 0690L *Proteus mirabilis* derived from ATCC® 25933™\*
- 0353L *Pseudomonas aeruginosa* derived from ATCC® 27853™\*
- 0421L *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 13311™\*
- 0485L *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*

See all 680+ LYFO DISK strains at [www.microbiologics.com](http://www.microbiologics.com).

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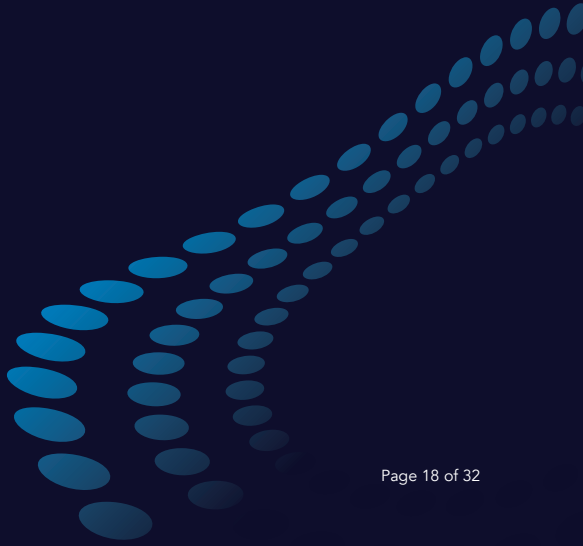




# PRODUCTS FOR QUANTITATIVE TESTING

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Daily process controls to monitor methods, equipment, techniques, and environmental conditions.





Epower is the embodiment of “flexibility is your friend.” You’ll love the versatility of simply using one product for all of your QC needs – from media QC and presence/absence testing to enumeration testing, water testing, and disinfectant testing. Use a single strain or combine multiple strains for a mixed population. Each quantitative microorganism pellet delivers a specific range of CFU, so you can easily manipulate Epower to deliver virtually any concentration. We know you’ll appreciate the ease and adaptability that Epower offers.

## Highlights

- Accredited reference material under ISO 17034 standard
- Available in concentrations ranging from  $10^2$  to  $10^8$  CFU per pellet
- Strains are less than or equal to three passages from reference culture
- Can be combined for a mixed microorganism population
- Easily manipulated to deliver a wide variety of concentrations
- Ready-to-use format to save you time and money
- Refrigerated storage is easy and economical
- Traceability to reference cultures ensures authenticity



## Package Details

- Vial of 10 quantitated lyophilized pellets

## Applications and Test Methods

- Microbial detection
- Enumeration
- Verification and Validation
- Equipment calibration
- Method validation
- Disinfectant qualification
- Water tests
- Proficiency tests
- Mixed microorganism population challenge

## Strains Available

- 0260 *Arthrobacter psychrolactophilus* derived from ATCC® 700733™\*
- 0392 *Aspergillus brasiliensis* derived from ATCC® 16404™\*
- 0486 *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*
- 0488 *Burkholderia cepacia* derived from ATCC® 25416™\*
- 0443 *Candida albicans* derived from ATCC® 10231™\*
- 0487 *Clostridium sporogenes* derived from ATCC® 11437™\*
- 0756 *Cronobacter muytjensii* derived from ATCC® 51329™\*
- 0366 *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0795 *Escherichia coli* (O157:H7) derived from ATCC® 43888™\*
- 0791 *Escherichia coli* derived from ATCC® 51813™\*
- 0483 *Escherichia coli* derived from ATCC® 8739™\*
- 0306 *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0814 *Listeria innocua* (6a) derived from ATCC® 33090™\*
- 0687 *Listeria monocytogenes* derived from ATCC® 19115™\*
- 0794 *Penicillium venetum* derived from ATCC® 16025™\*
- 0353 *Pseudomonas aeruginosa* derived from ATCC® 27853™\*
- 0484 *Pseudomonas aeruginosa* derived from ATCC® 9027™\*
- 0363 *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*
- 0485 *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*
- 0803 *Zygosaccharomyces rouxii* derived from ATCC® 28253™\*

See all 70+ Epower strains at [www.microbiologics.com](http://www.microbiologics.com).

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The ultimate in authenticity. Epower CRM quantitative quality control microorganisms are just one passage from the reference strain. If your lab is ISO 17025:2017 accredited, Epower CRM can help you meet the requirements of Section 6.5.2(b) regarding reference materials. This product offers plenty of flexibility, which is a huge benefit in the lab. Each microorganism pellet has a pre-determined range of CFUs, so you can easily manipulate the product to deliver your desired concentration. You can also create a mixed microorganism population by combining multiple Epower CRM strains. As a Certified Reference Material, Epower CRM comes with a comprehensive Certificate of Analysis detailing the strain's identity, characteristics and standard deviation.

## Highlights

- Quantitative QC microorganisms one passage from the reference strains for ultimate authenticity
- Available in concentrations ranging from  $10^2$  to  $10^7$  CFU per pellet
- Can be combined for a mixed microorganism population
- Easily manipulated to deliver a wide variety of concentrations
- Ready-to-use format to save you time and money
- Refrigerated storage is easy and economical





## Package Details

- Vial of 10 quantitated lyophilized microorganism pellets
- Certificate of Analysis

## Applications and Test Methods

- ISO 17025:2017 laboratories requiring CRM
- Detection and enumeration methods
- Verification and Validation
- Bioburden determination
- Minimal lethal concentration
- Disinfectant qualification
- Water tests
- Proficiency tests
- Methods requiring a specific CFU range
- Mixed microorganism population challenge

## Strains Available

- 0392 *Aspergillus brasiliensis* derived from ATCC® 16404™\*
- 01182 *Aspergillus flavus* derived from ATCC® 9643™\*
- 0998 *Bacillus cereus* derived from ATCC® 10876™\*
- 0486 *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*
- 0443 *Candida albicans* derived from ATCC® 10231™\*
- 0487 *Clostridium sporogenes* derived from ATCC® 11437™\*
- 0756 *Cronobacter muytjensii* derived from ATCC® 51329™\*
- 0366 *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0495 *Escherichia coli* derived from ATCC® 35218™\*
- 0791 *Escherichia coli* derived from ATCC® 51813™\*
- 0306 *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0694 *Klebsiella pneumoniae* subsp. *pneumoniae* derived from ATCC® 10031™\*
- 0813 *Lactobacillus fermentum* derived from ATCC® 9338™\*
- 0814 *Listeria innocua* derived from ATCC® 33090™\*
- 0687 *Listeria monocytogenes* derived from ATCC® 19115™\*
- 0698 *Saccharomyces kudriavzevii* derived from ATCC® 2601™\*
- 0421 *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 13311™\*
- 0363 *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*
- 0360 *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 25923™\*
- 0485 *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*

See all 30+ Epower CRM strains at [www.microbiologics.com](http://www.microbiologics.com).

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Let's face it; Growth Promotion Testing of culture media is likely not at the top of your "favorite lab activities" list. We get it, which is why we created EZ-Accu Shot. It provides a fast, convenient and reliable solution for Growth Promotion Testing, Media Challenge Testing and more. Each instant-dissolve microorganism pellet is designed to deliver 10-100 CFU per inoculum and provides 8 hours of stability after rehydration, so you can meet required guidelines with ease.

## Highlights

- Accredited reference material under ISO 17034 standard
- Delivers 10-100 CFU per 0.1 ml
- Strains are less than or equal to three passages from reference culture
- Instant dissolve pellet reduces preparation time
- No dilutions required for simplified test procedure
- Up to 8 hours stability allows for ultimate flexibility
- 50 tests per kit, ideal quantity for labs of any size
- Refrigerated storage is easy and economical
- Traceability to reference cultures ensures authenticity
- Online Certificate of Analysis provides detailed strain information



## Package Details

- Five vials of a single, quantitated microorganism (one lyophilized pellet per vial)
- Five vials of Hydrating Fluid (1.2 ml in each vial)
- Up to 50 tests per kit

## Applications and Test Methods

- Growth Promotion Testing
- Media Challenge Testing
- Suitability of Counting Methods
- Suitability of Sterility Tests
- Suitability of Tests for Specified Microorganisms
- Microbial Limits Testing
- Microbial Enumeration Testing
- Validation of Neutralization Methods
- Methods requiring a low CFU concentration

## Strains Available

- 0392A *Aspergillus brasiliensis* derived from ATCC® 16404™\*
- 0998A *Bacillus cereus* derived from ATCC® 10876™\*
- 0486A *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*
- 01269A *Burkholderia cenocepacia* derived from ATCC® BAA-245™\*
- 0488A *Burkholderia cepacia* derived from ATCC® 25416™\*
- 0443A *Candida albicans* derived from ATCC® 10231™\*
- 0487A *Clostridium sporogenes* derived from ATCC® 11437™\*
- 0317A *Clostridium sporogenes* derived from ATCC® 19404™\*
- 0366A *Enterococcus faecalis* derived from ATCC® 29212™\*
- 0335A *Escherichia coli* derived from ATCC® 25922™\*
- 0483A *Escherichia coli* derived from ATCC® 8739™\*
- 0306A *Klebsiella aerogenes* derived from ATCC® 13048™\*
- 0957A *Klebsiella pneumoniae* subsp. *pneumoniae* derived from ATCC® 33495™\*
- 0688A *Kocuria rhizophila* derived from ATCC® 9341™\*
- 0353A *Pseudomonas aeruginosa* derived from ATCC® 9027™\*
- 0699A *Saccharomyces cerevisiae* derived from ATCC® 9763™\*
- 0421A *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 13311™\*
- 0363A *Salmonella enterica* subsp. *enterica* serovar Typhimurium derived from ATCC® 14028™\*
- 0360A *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 25923™\*
- 0485A *Staphylococcus aureus* subsp. *aureus* derived from ATCC® 6538™\*

See all 40+ EZ-Accu Shot strains at [www.microbiologics.com](http://www.microbiologics.com).

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# ez · SPORE™

Spore-forming pathogens can present unique challenges for food laboratories that are conducting tests to detect these contaminants. That's why food microbiology labs across the globe rely on EZ-SPORE quantitative microorganism preparations for validating their spoilage detection methods or for disinfectant qualification studies. EZ-SPORE preparations provide a concentration of  $10^4$  CFU per pellet, making microbiological challenge testing for spore-formers quicker and easier.



## Package Details

- Vial of 10 lyophilized pellets

## Highlights

- Accredited reference material under ISO 17034 standard
- EZ-SPORE contains  $10^4$  CFU per pellet
- Strains are less than or equal to three passages from the reference culture
- Ready-to-use format saves time and money
- Refrigerated storage is easy and economical
- Online Certificate of Analysis provides detailed strain information
- Traceability to reference cultures ensures authenticity

## Applications and Test Methods

- Daily food process controls
- Spoilage detection methods
- Disinfectant qualification studies

## Strains Available

- 0256SPR *Bacillus cereus* derived from ATCC® 11778™\*
- 0486SPR *Bacillus subtilis* subsp. *spizizenii* derived from ATCC® 6633™\*
- 0871SPR *Geobacillus stearothermophilus* derived from ATCC® 7953™\*

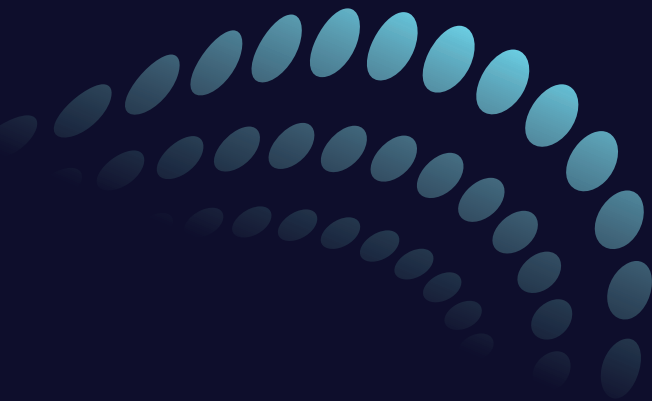
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# WATER AND MEMBRANE FILTRATION



Improve water testing with the highest quality biological reference materials.





## Water testing controls with unmatched versatility.



For water testing QC, nothing beats the versatility and simplicity of Epower. Each quantitative microorganism pellet delivers a specific range of CFU (from  $10^2$  and  $10^8$ ), allowing combinations with virtually any concentration of single strain or mixed populations. The test-ready format minimizes time without sacrificing precision.



Epower CRM brings the versatility of Epower along with the assurance of single-passage microorganisms. For ISO 17025:2017 accredited laboratories, Epower CRM is the most convenient way to meet the requirements of Section 6.5.2(b) regarding reference materials. As a Certified Reference Material, Epower CRM comes with a comprehensive Certificate of Analysis detailing the strain's identity, characteristics, and standard deviation.





# LYFO·DISK™

LYFO DISK offers convenience and flexibility for water testing and many other quality control applications, including presence/absence testing, microbial identification methods, antimicrobial susceptibility testing, media QC, and more! After a quick rehydration with a diluent, such as phosphate buffer or saline, LYFO DISK is ready for inoculation of your culture media.

# KWIKSTIK™

KWIK-STIK has been the standard for all-in-one simplicity for decades. Its all-inclusive design reduces the chance for error and cross-contamination. Each KWIK-STIK provides everything you need to grow reference cultures for QC testing: qualitative lyophilized microorganism pellet, ampoule of hydration fluid and inoculating swab.



# CUSTOM CONTROLS

Your strain. Your format. Your convenience.

We simplify environmental isolate and objectionable organism testing by providing a complete solution to help you meet FDA, USDA and other regulations and guidelines. Using your environmental isolate or targeted objectionable organism, we manufacture test-ready controls quantitated for specific methods.

## Examples of strains made into custom controls:

- *Bacillus cereus*
- *Burkholderia multivorans*
- *Enterobacter aerogenes*
- *Enterobacter cloacae*
- *Enterococcus species*
- *Escherichia coli* (O157:H7)
- *Klebsiella pneumoniae*
- *Kocuria rhizophila*
- *Legionella pneumophila*
- *Listeria monocytogenes* (serotype 4b)
- *Pseudomonas aeruginosa*
- *Salmonella weltevreden*
- *Serratia marcescens*
- *Staphylococcus aureus*
- *Vibrio cholerae*

See more examples at [www.microbiologics.com](http://www.microbiologics.com).



# FOOD & WATER TESTING PARTNERSHIPS

## Controls designed for your unique instrument and assay.

We partner with assay manufacturers to create the highest quality control materials. If you need third-party controls for development, validation, and on-going quality control, Microbiologics is a globally trusted partner for QC solutions. We combine our extensive expertise, unique technologies, and world-class support services to produce the highest quality controls tailored to your specifications.

We develop user-friendly products that accelerate commercialization and increase adoption of your assay in the market. Analyzing your unique approach, we design a qualification program and ongoing control strategy tailored to your platform and assays. When you are ready to submit your assay for regulatory clearance, you will have a fully tested product with a guided path for launch.





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