

qPCR ASSAYS

| Product Number | Assay Product Name | Description | Volume/Vial(µL) | Vials/Kit |
|----------------|--------------------------------|--|-----------------|-----------|
| ACU-A-001010 | Acu-PCR™ qPCR Negative Control | QPCR Negative Control | 100 | 1 |
| ACU-A-001020 | Acu-PCR™ qPCR Negative Control | QPCR Negative Control | 200 | 1 |
| ACU-A-001110 | Acu-PCR™ qPCR Positive Control | QPCR Positive Control | 100 | 1 |
| ACU-A-001120 | Acu-PCR™ qPCR Positive Control | QPCR Positive Control | 200 | 1 |
| ACU-A-001210 | Acu-PCR™ BA Chromo Assay | <i>Bacillus anthracis</i> (chromosomal gene) | 100 | 1 |
| ACU-A-001220 | Acu-PCR™ BA Chromo Assay | <i>Bacillus anthracis</i> (chromosomal gene) | 200 | 1 |
| ACU-A-001310 | Acu-PCR™ BA pX01 Assay | <i>Bacillus anthracis</i> (pX01 gene) | 100 | 1 |
| ACU-A-001320 | Acu-PCR™ BA pX01 Assay | <i>Bacillus anthracis</i> (pX01 gene) | 200 | 1 |
| ACU-A-001410 | Acu-PCR™ FT Assay | <i>Francisella tularensis</i> | 100 | 1 |
| ACU-A-001420 | Acu-PCR™ FT Assay | <i>Francisella tularensis</i> | 200 | 1 |
| ACU-A-001510 | Acu-PCR™ YP Assay | <i>Yersinia pestis</i> | 100 | 1 |
| ACU-A-001520 | Acu-PCR™ YP Assay | <i>Yersinia pestis</i> | 200 | 1 |
| ACU-A-001610 | Acu-PCR™ BR Assay | <i>Brucella spp.</i> | 100 | 1 |
| ACU-A-001620 | Acu-PCR™ BR Assay | <i>Brucella spp.</i> | 200 | 1 |
| ACU-A-001710 | Acu-PCR™ Cox Assay | <i>Coxiella burnetii</i> | 100 | 1 |
| ACU-A-001720 | Acu-PCR™ Cox Assay | <i>Coxiella burnetii</i> | 200 | 1 |
| ACU-A-001810 | Acu-PCR™ Pox Assay | <i>Pan-orthopox</i> | 100 | 1 |
| ACU-A-001820 | Acu-PCR™ Pox Assay | <i>Pan-orthopox</i> | 200 | 1 |
| ACU-A-001910 | Acu-PCR™ BG Assay | <i>Bacillus atrophaeus</i> (<i>B. globigii</i> , <i>B. subtilis</i> var. <i>niger</i>) | 100 | 1 |
| ACU-A-001920 | Acu-PCR™ BG Assay | <i>Bacillus atrophaeus</i> (<i>B. globigii</i> , <i>B. subtilis</i> var. <i>niger</i>) | 200 | 1 |
| ACU-A-002010 | Acu-PCR™ BTK Assay | <i>Bacillus thuringiensis</i> var. <i>kurstaki</i> | 100 | 1 |
| ACU-A-002020 | Acu-PCR™ BTK Assay | <i>Bacillus thuringiensis</i> var. <i>kurstaki</i> | 200 | 1 |
| ACU-A-002110 | Acu-PCR™ LM Assay | <i>Listeria monocytogenes</i> | 100 | 1 |
| ACU-A-002120 | Acu-PCR™ LM Assay | <i>Listeria monocytogenes</i> | 200 | 1 |
| ACU-A-002210 | Acu-PCR™ SmE Assay | <i>Salmonella enterica</i> | 100 | 1 |
| ACU-A-002220 | Acu-PCR™ SmE Assay | <i>Salmonella enterica</i> | 200 | 1 |

RT-qPCR ASSAYS

| Product Number | Assay Product Name | Description | Volume/Vial(µL) | Vials/Kit |
|----------------|----------------------------------|--|-----------------|-----------|
| ACU-A-002310 | Acu-PCR™ VEE Assay | Venezuelan equine encephalitis (VEE) virus | 100 | 1 |
| ACU-A-002320 | Acu-PCR™ VEE Assay | Venezuelan equine encephalitis (VEE) virus | 200 | 1 |
| ACU-A-002410 | Acu-PCR™ RTqPCR Positive Control | RT-QPCR Positive Control | 100 | 1 |
| ACU-A-002420 | Acu-PCR™ RTqPCR Positive Control | RT-QPCR Positive Control | 200 | 1 |

TOXIN ASSAYS

| Product Number | Assay Product Name | Description | Volume/Vial(µL) | Vials/Kit |
|----------------|--------------------------------|--|-----------------|-----------|
| ACU-A-002510 | Acu-Ricin®/Abrin Assay | Ricin /Abrin toxin | 100 | 1 |
| ACU-A-002520 | Acu-Ricin®/Abrin Assay | Ricin /Abrin toxin | 200 | 1 |
| ACU-A-002610 | Acu-Ricin®/Abrin Control Assay | Ricin /Abrin toxin Control | 100 | 1 |
| ACU-A-002620 | Acu-Ricin®/Abrin Control Assay | Ricin /Abrin toxin Control | 200 | 1 |
| ACU-A-002710 | Acu-BOT® Assay | Botulinum Neurotoxin A | 100 | 1 |
| ACU-A-002720 | Acu-BOT® Assay | Botulinum Neurotoxin A | 200 | 1 |
| ACU-A-002810 | Acu-BOT® Control Assay | Botulinum Neurotoxin A Control | 100 | 1 |
| ACU-A-002820 | Acu-BOT® Control Assay | Botulinum Neurotoxin A Control | 200 | 1 |
| ACU-A-002910 | Acu-PAPA® SEB Assay | Staphylococcal Enterotoxin B (SEB) toxin | 100 | 1 |
| ACU-A-002920 | Acu-PAPA® SEB Assay | Staphylococcal Enterotoxin B (SEB) toxin | 200 | 1 |
| ACU-A-003010 | Acu-PAPA® SEB Control Assay | Staphylococcal Enterotoxin B (SEB) toxin Control | 100 | 1 |
| ACU-A-003020 | Acu-PAPA® SEB Control Assay | Staphylococcal Enterotoxin B (SEB) toxin Control | 200 | 1 |
| ACU-A-003110 | Acu-Shiga™ Assay | Shiga toxin | 100 | 1 |
| ACU-A-003120 | Acu-Shiga™ Assay | Shiga toxin | 200 | 1 |
| ACU-A-003210 | Acu-Shiga™ Control Assay | Shiga toxin Control | 100 | 1 |
| ACU-A-003220 | Acu-Shiga™ Control Assay | Shiga toxin Control | 200 | 1 |

Other services we provide:



ENVIRONMENTAL TESTING



VETERINARY SERVICES



FOOD AND SAFETY



BEVERAGE SAFETY TESTING



CLINICAL DIAGNOSTICS



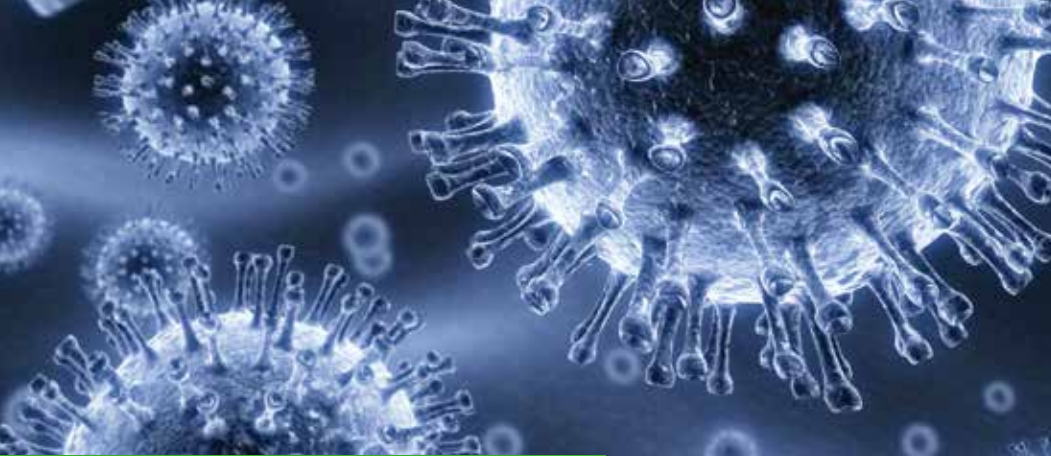
Actionable knowledge, where you need it, when you need it.



BioAssay Material

No one else has the ability to detect biologically active toxins in the field.

Contact us at 315-452-8000 or 1-800-724-0451 with any questions.
6274 Running Ridge Road, North Syracuse, New York 13212 • www.acumendetection.com



Acumen 'ak-yə-mən\ n Quickness, accuracy and ability to discriminate and show good judgment.

Acumen Detection delivers the capabilities that provide actionable knowledge where it's needed, when it's needed. When we develop our technologies, we start by putting the operator at the center of the system, and we make sure that our products are ready to work where you work, no matter how rugged the environment. They're simple and affordable so that anyone can use them, and fast so you can make decisions that make a difference.

OUR ASSAYS GIVE YOU THE ABILITY TO DETECT BIOLOGICALLY ACTIVE TOXINS IN THE FIELD.

Who we help:

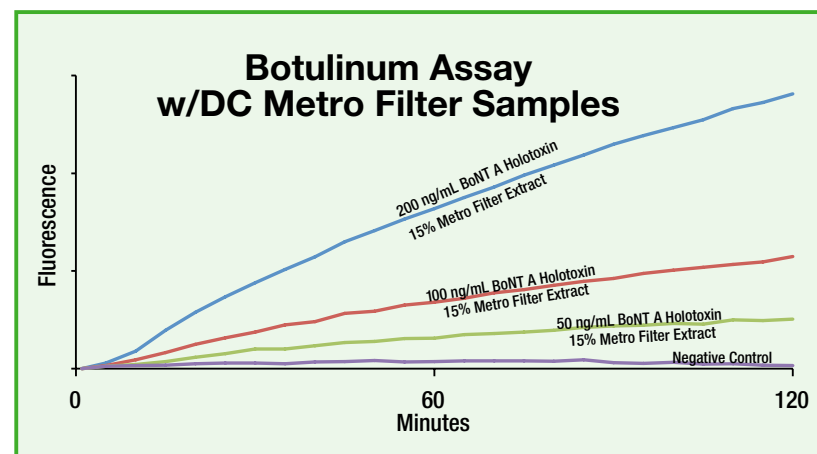
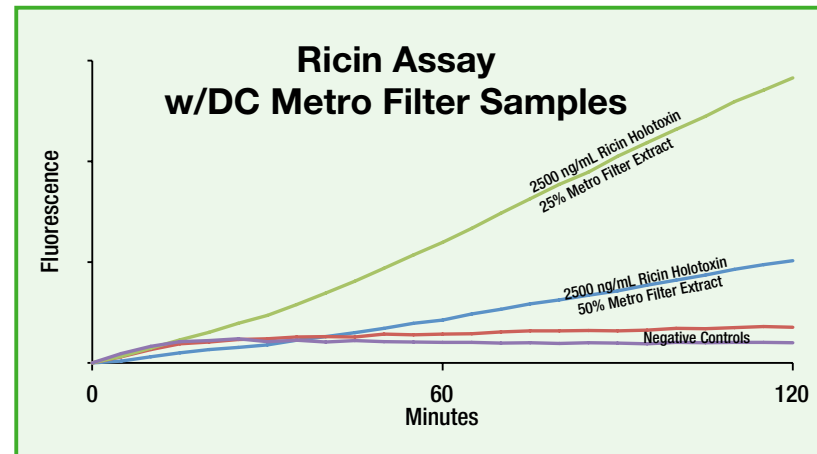
First responders including

- Military
- Police
- Firefighters

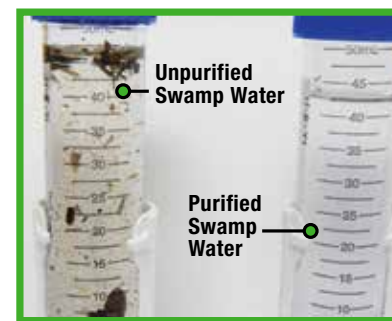


Assays validated to work in challenging environments.

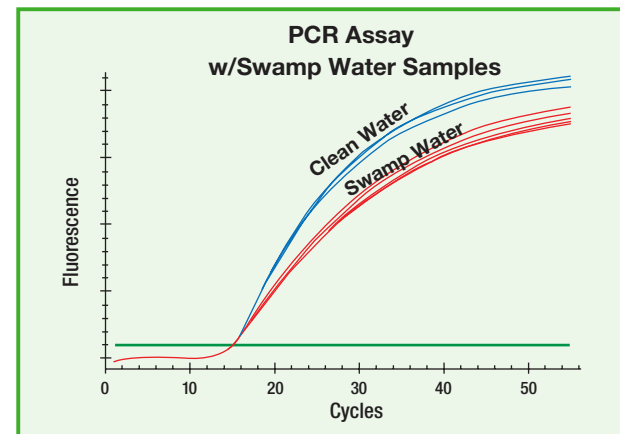
- Developed to detect biological targets in environmental samples *without* sample clean-up
- Resistant to many environmental interferents
 - Montana soil
 - Humic acid
 - Arizona road dust
 - Diesel exhaust
 - Salts
 - DC Metro dust
 - Swamp water



Acumen Detection's robust PCR assays work in austere conditions, reducing time and costs.



- Some Largo, Florida, swamp water was purified using a water purification unit
- No sample clean-up was used for the unpurified swamp water samples
- The unpurified and purified swamp water samples were used to resuspend Acumen Detection's positive control lyophilized PCR assay



Applications:

- Our assays can be used in a variety of civilian and government applications that include:
- Biosurveillance
 - Chemical and biological defense
 - Food and water monitoring
 - Homeland security against bioterrorism
 - Public health monitoring

Benefits:

- Speeds up sample processing time
- Simplifies sample processing to just one step
- Plugs and plays with existing hardware
- Reduces hardware and logistics costs
- Remains stable with a long shelf life

We design our assays for maximum shelf life.

Stability Testing (Actual Data)*

| Assay Type | 4C | 25C | 50C |
|-------------|----------|----------|----------|
| qPCR | >2 years | 2 years | 16 weeks |
| RT-qPCR | >2 years | 2 years | 16 weeks |
| Ricin/Abrin | 2 years | 12 weeks | 12 weeks |
| BoNT-A | 2 years | 10 weeks | 10 weeks |
| SEB | 1 year | 4 weeks | TBD |

*Testing is ongoing to determine shelf life

