

# QuikTest HHA

## Hand-held Assay Kits



## New Paradigms in Biological Threat Screening

### Features

- Hand-held
- Fast
- Economical
- Customizable
- Tests for:
  - Bacillus anthracis
  - Francisella tularensis
  - Yersinia pestis
  - Brucella spp.
  - Botulinum toxin A
  - Ricin
  - Staphylococcal enterotoxin B
  - Orthopox

### Application Areas

- First responders
- Public safety
- Military

Research International sources for its customers the latest in lateral flow immunoassay test strips and kits for biological agent identification. One such source is Alexeter Technologies LLC. Alexeter has created RAID™ (Rapid Assessment Initial Detection) immunoassay strips as an economical pre-screening device designed to quickly evaluate a suspicious powder or liquid in the field or in the laboratory for biothreats.

**Rapid on-site biothreat detection** RAID tests offer rapid, on-site, biological field detection for first responders, public safety workers, facility security and military personnel with high sensitivity and specificity against common biothreat agents, including eight recognized by the US CDC as highest risk if used in a terrorist attack: Bacillus anthracis (Anthrax), Francisella tularensis (Tularemia), Yersinia pestis (Plague), Brucella spp., Botulinum toxin A, Ricin, Staphylococcal Enterotoxin B (SEB) and orthopox

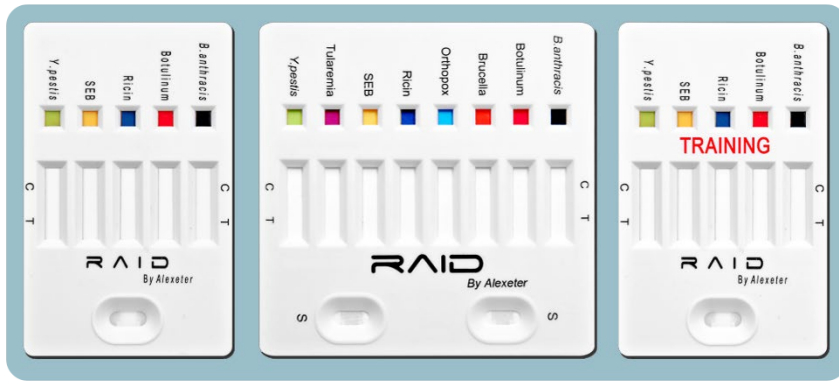


*QuikTest HHA: A hand-held assay (HHA) capable of simultaneously identifying up to 8 different biological threat agents.*

(smallpox surrogate). These assays have been developed using highly sensitive and specific antibodies to give rapid high-performance assays with results in 15 minutes. RAID strips are also available in one-agent and 5-agent formats and with sample collection materials as kits.

### Other Test Strips

Research International can supply HHA test strips to identify the presence of other biological threats including adenovirus, brucellosis, Campylobacter, calciviruses, Chagas, chikungunya, Clostridium perfringens, Cryptosporidium, Dengue, Ebola, E. coli O157:H7, Entamoeba histolytica, Giardia, Hepatitis A, Toxoplasma gondii, Legionella, Leishmania, Leptospirosis, Listeria, Malaria, Melioidosis, Mycotoxins, RSV, Salmonella sp., Shigella species, Typhus, and pathogenic Vibrios. Contact us for agents not listed here.



Examples of RAID™ high-performance immunoassay strips and pre-programmable trainers.

## Lateral Flow Principles of Operation

The test strip is a lateral flow immunochromatographic device that uses two antibodies in combination to specifically detect the antigen in solution. One of the specific antibodies is labeled with a colloidal gold derivative. When sufficient antigen is present, the colloidal gold label provides a reddish-brown colored line that is visualized after accumulating in the test sample region on the device. When a sample is added to the test strip, the sample begins to mix with the colloidal gold-labeled antibody and simultaneously moves along the strip membrane by capillary action. In the sample region of the test strip, if the antigen is present, the second specific antibody captures the colloidal gold-labeled antibody and bound antigen, forming a colored line or band in the sample window of the test strip. As an internal control, a second band will appear in a control window and is an indication that the test strip functioned properly. Two bands or colored lines are required for a positive result determination.

## Training

Research International has available a complete set of training tools designed to mimic the performance characteristics of test strips. RAID™ Trainers are designed to replicate the actual performance characteristics of a biothreat detection kit and allow the instructor to provide hands-on training to demonstrate the proper use of hand-held assays without exposure to live agents. In return, valuable insights are learned regarding how HHA's perform in a real world environment, safely and effectively. RAID™ trainers are pre-programmed to the instructor's requirements, providing a positive result for any one of five biothreats he or she may be illustrating to the class: *B. anthracis*, Ricin toxin, Botulinum toxin, *Y. pestis* (Plague) or SEB.

## Kits

Research International also provides customers with standard or custom sampling kits. Standard kits include a RAID-8 HHA, collection swab with sample buffer, resealable plastic bag for collection of waste materials, biohazard label, and instruction booklet. Please contact us for your custom sampling kit needs.



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