BIOTHREAT DETECTION IMASS™ DEVICE

SPECIFICATION SHEET
BIOTHREAT DETECTION IMASS™
DEVICE PART No: BW-IMASS

Integrated Multiplex Assay and Sampling System

The IMASS™ device provides a crucial advance in rapid testing, particularly for 'white powder' incidents. The device is used to directly sample powders, surfaces or liquids using an integrated sponge, transferring sample to eight immunoassay strips simultaneously giving results for eight biothreat agents in 15 minutes. Its robust design (licensed from the UK Secretary of State for Defence) means that the IMASS™ device is straightforward to run and to read, even while wearing full individual protective equipment.

KEY FEATURES

- + Detects Anthrax and other bacteria
- + Detects Ricin and other toxins
- + Results in 15 minutes
- + Easy to use in full individual protective equipment
- + Can sample surfaces, powders or liquids
- + No power requirements

Contact: **info@bbidetection.com**
Go to: **www.bbidetection.com**

BBI™ Detection
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The IMASS™ device contains coded test strips to detect up to 8 biothreat agents which are among those noted by the US CDC as being the highest risk if utilised in a terrorist attack.[1] These are: Bacillus anthracis, Ricin, Francisella tularensis, Yersinia pestis, Burkholderia mallei, Brucella spp., Botulinum Toxin A and B, and Staphylococcal Enterotoxin B. The test strips are coded to easily identify targets.

Code	Agent Detected
ANX	Bacillus anthracis (Anthrax)
RIC	Ricin toxin
BTX	Botulinum Toxin A/B
TUL	Francisella tularensis
PLA	Yersinia pestis (Plague)
BRU	Brucella spp.
BRK	Burkholderia mallei (Glanders)
SEB	Staphylococcal Enterotoxin B

SUMMARY OF PERFORMANCES

Assay Name	RIC	BTX		SEB	ANX		TUL	PLA		BRK	BRU	
Antigen Type	RCA120 Toxin	Botulinum Neurotoxin Types A	Botulinum Neurotoxin Types B	Staphylococcal Enterotoxin Type B	Ames	Vollum	Francisella Tularensis BD11-00177	Y. Pestis NCTC10030 28° C Grown	Y. Pestis NCTC10030 35° C Grown	B. mallei BM646	Brucella abortus BM1339	Brucella Melintensis BM407
Confirmed Minimum expected Detection Levels	10ng/ml	20ng/ml	20ng/ml	20ng/ml	$5x10^7$ Org/ml	$5x10^6$ Org/ml	$1x10^7$ Org/ml	$1x10^8$ Org/ml	$1x10^8$ Org/ml	$1x10^6$ Org/ml	$5x10^7$ Org/ml	$5x10^7$ Org/ml

Confirmed minimum expected detection levels determined by testing carried at BBI BSL 2 facilities using live toxins and inactivated bacterial antigens

TEST EVALUATION DATA - RICIN TEST

Assay Name	RIC
Antigen Type	Ricin Toxin
Limit of Detection	10ng/ml

Data from testing carried out and reported in Slotved, HC, 2014. Evaluating 6 Ricin Field Detection Assays. Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science, Volume 12, Number 4

TEST EVALUATION DATA - BACTERIAL TESTS

Assay Name	ANX		TUL	PLA		BRK	BRU
Antigen Type	Ames spores	Veg cells BM1213	Francisella Tularensis BM1323	Y. Pestis BM1253 28 O C Grown	Y. Pestis BM1253 35 O C Grown	B. Pseudomallei BM1355	Brucella Melintensis BM410
Limit of Detection	$1x10^4$ Org/ml	$1x10^6$ Org/ml	$1x10^4$ Org/ml	$1x10^8$ Org/ml	$1x10^8$ Org/ml	$1x10^3$ Org/ml	$5x10^4$ Org/ml

Test evaluation data on individual assays strips with testing carried out TNO, Netherlands using live bacteria July – August 2013. Full report available on request.

IMASS™ TRAINING AND TRAINING DEVICES

Specially designed training IMASS™ devices can be supplied for user training/assessments. These devices enable the instructor to demonstrate the correct use of the device in a training environment, and also to assess the user's ability to utilise the device. We can provide training on-site at our Dundee, Porton Down or Madison facilities, or complete the training at the customers premises.

1: CDC | Bioterrorism Agents/Diseases (by Category) | Emergency Preparedness & Response Bt.cdc.gov (2010) CDC | Bioterrorism Agents/Diseases (by Category) | Emergency Preparedness & Response. [online] Available at: http://www.bt.cdc.gov/agent/agentlist-category.asp [Accessed: 17 Jan 2013].

BBI Detection reserve the right to update test information as further evaluation data becomes available.

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