



PNNL THIRD-PARTY VALIDATION

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EVALUATION OF ANTHRAX & RICIN

PathSensors technology was evaluated in two separate studies performed by Pacific Northwest National Laboratory (PNNL) to determine the sensitivity of CANARY assays versus other leading immunoassay technologies and PCR methods of detection. The studies, entitled "Evaluation of Immunoassays and General Biological Indicator Tests for Field Screening of Bacillus anthracis and Ricin" and "Evaluation of PCR Systems for Field Screening of Bacillus Anthracis," yielded promising results, showing CANARY to be one of the most sensitive technologies on the market.

I M M U N O A S S A Y S :

- ➔ **Anthrax:** "The CANARY Zephyr achieved an estimated limit of detection of 10^3 spores/mL, which was 4 orders of magnitude lower than any other immunoassay tested."

	IMASS	ENVI	Smart™	CANARY® Zephyr	RAMP®	Bio Threat Alert®
<i>B. anthracis</i> Ames35	10^7	10^6	10^7	10^3	10^7	10^8

- ➔ **Ricin:** "The CANARY Zephyr achieved the lowest limit of detection (3 ng/mL). Six products had estimated limits of detection of 25 ng/mL, while 4 of the 13 ricin immunoassays had estimated limits of detection >0.1 mg/mL, which was the inclusivity test concentration for immunoassays."

P C R :

- ➔ **"CANARY** achieved limit of detection levels of 10^3 spores/mL, making it as sensitive as the best PCR technology and more sensitive than three of the PCR tests studied."

Lowest Concentration Consistently Detected (spores/mL)					
CANARY®	FilmArray®	RAZOR® EX	T-COR 4™	Bio-Seq™ PLUS	POCKIT™
1,000	675	1,000	2,000	20,000	2,000

PathSensors technology consistently outperformed other immunoassays and achieved PCR levels of sensitivity in pathogen detection.

