

STATE OF COLORADO

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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

Laboratory Services Division: Ricin Testing

Test Capabilities: Polymerase Chain Reaction (PCR)
Time-resolved Fluorescence (TRF)

- PCR is used to detect the residual Castor bean DNA present in purified or partially purified samples.
- Turn-around time for PCR is approximately four hours from the time the sample is received by the laboratory.
- Reagents for this test are currently available and are maintained at a level to perform over 500 PCR tests. For extended response, more reagents can be obtained within 24 hours.
- The laboratory is capable of processing 500 samples per day for PCR analysis.
- TRF is used to detect the ricin toxin directly using a specific antibody that reacts only with the ricin protein.
- Turn-around time and sample capacity is lower for TRF compared when compared with PCR.
- Confirmatory testing of presumptive positive findings by the State laboratory is performed at the Centers for Disease Control and Prevention.