



Date: April 10, 2020
To: All Health Care Providers
From: Alberta Precision Laboratories (APL) – Public Health Laboratory
Re: COVID-19 test performance

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Key messages:

- Testing for COVID-19 is performed using a real-time reverse transcriptase PCR assay developed at the APL – Public Health Laboratory (ProvLab).
- This laboratory-developed test detects RNA of the COVID-19 virus. It detects two targets: the envelope gene and the RNA-dependent RNA polymerase gene.
- The performance of the ProvLab test equals or exceeds that of many other COVID-19 tests used in Canada and those that have received regulatory agency approval.
- Limit of detection studies demonstrate that the ProvLab test detects fewer than 10 copies of the virus per reaction. Testing a large panel of samples positive for other respiratory pathogens showed that the assay does not cross-react with other viruses including seasonal coronaviruses. Parallel testing with the Public Health Agency of Canada National Microbiology Laboratory (Winnipeg) revealed 100% concordance.
- Commercial tests will be implemented in the near future and will also undergo rigorous evaluation.
- The clinical sensitivity of any test is completely dependent on the quality of specimen collected. If a low-quality specimen is collected, false-negative results can occur.

Inquiries and feedback may be directed to:

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This bulletin has been reviewed and approved by:

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