

RT-LAMP Assay for Detection of SARS-CoV-2

Domain: Diagnostic Assay/Kit

About Technology: This is an indigenously developed loop mediated isothermal amplification (LAMP) kit for detection of SARS-CoV-2. The internal control (IC) gene (Beta actin) is also included. The assay is useful to ramp up testing capacity to diagnose COVID-19 in the country and abroad.

Intended Use: Diagnose COVID-19 in the country and abroad

Advantages:

- Novel and Indigenous test for rapid diagnosis of COVID-19
- Cost-effective

IP Status: Granted (Italy Application No. - 112022000176184), filed (Indian Patent Application No.- 202011023573, PCT Application No. - PCT/IN2021/050549)



| No. | RT-LAMP end point color | Visual observation | Interpretation |
|-----|-------------------------|---|---|
| 1 | E N B | Both E and N gene reaction tubes are pink B-actin gene reaction tube is yellow | Negative for both E and N gene. Negative for SARS-CoV-2 Internal control is positive |
| 2 | E N B | E gene reaction tube is pink and N gene reaction tube is yellow B-actin gene reaction tube is yellow | Negative for E gene and positive for N gene. Positive for SARS-CoV-2 Internal control is positive |
| 3 | E N B | E gene reaction tube is yellow and N gene reaction tube is pink B-actin gene reaction tube is yellow | Positive for E gene and negative for N gene. Positive for SARS-CoV-2 Internal control is positive |
| 4 | E N B | Both E and N gene reaction tubes are pink B-actin gene reaction tube is yellow | Positive for both E and N gene. Positive for SARS-CoV-2 Internal control is positive |

Development Status: Third party validation complete

Technology Transfer Status: Transferred to companies on Non-Exclusive basis (Some licensees have already received Manufacturing License from CDSCO) and commercial batches have been manufactured

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