

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

**Domain:** Diagnostics (Assay/Kits)

**About Technology:** Indigenously developed loop mediated isothermal amplification (LAMP) kit for detection of SARS-CoV-2. The internal control (IC) gene (Beta actin) is also included

**Intended Use:** The assay is useful to ramp up testing capacity to diagnose COVID-19 in the country and abroad

**Advantages:**

- Rapid RT-LAMP assay
- Cost-effective

**IP Status:** Filed (Indian Patent Application No.- 202011023573)

**Development Status:** Third party validation completed

**Technology Transfer Status:**

Transferred to companies on non-exclusive basis (Some licensees have already secured CDSCO manufacturing approval and are producing commercial batches)

Sr. 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

**Institute(s):** ICMR-National Institute of Virology (NIV)

**Inventor(s):** Dr. Shyam Sundar Nandi, Upendra Lambe, Sonali Ankush Sawant, Trupti Gohil, Dr. Jagadish Deshpande

For Licensing Opportunities contact: [patentmitra.hq@icmr.gov.in](mailto:patentmitra.hq@icmr.gov.in)