	Provincial Public Health Reference Laboratory (PPHRL)	Document #	
		Version	
		Issue per	
		Effective per	
		Pages	
		Author	
SOP for Dual Target Detection of COVID-19 (ORF1ab/N Gene)		Reviewed By	
		Approved By	

	Name and position	Signature/Stamp
Author(s)		
Verifiers		Stamp:
Approver		

Distribution of valid copies of this document:

1.	PPHRL Lab Staff on duty
2.	Quality Management Record
3.	Displayed at Site
Revise before:	After one year of approver/ as per need

Changes in this version compared to previous version:

To be done after revision as per international accreditation guidelines

Purpose

The purpose of this SOP is to define procedure for dual target detection of Detection of COVID-19 (ORF1ab/N Gene) guidelines to use Rotor Gene Q for the

Scope

The detection of COVID-19 genes (ORF1 ab and N gene) will be done on the Rotor-Gene Q instrument, which is designed to perform real-time and end-point thermal cycling using the polymerase chain reaction (PCR), and high-resolution melting analysis (HRM) in molecular biology applications.

Responsibility

PACP Advanced Diagnostic Lab (Authorized) Staff on duty.

Aim

The aim is to detect the COVID-19 target genes (ORF1ab and N gene) qualitatively against the Standards provided in the Fluorescence qPCR kit.

Material and equipment required

- Rotor Gene Q Instrument
- Rotor-Gene Q chamber
- Rotor Gene Q holder
- Laptop
- UPS
- PPE (Annex I)
- Disinfectant (Sodium hypochlorite and Ethanol)
- Tips
- Pipettes
- Reaction plates
- PCR strips
- PCR Amplification kits
- Adsorbent paper
- PPE (BSL2/BSL3 level working)
- Discarder (waste box)

Assay Setup Procedure: Assay set up for COVID-19 Amplification must be carried out in Biosafety Cabinet (BSC II) in the designated room (labelled as Amplification Unit COVID-19). Please see the BSCII SOPs for further information.

Reference:

https://www.asu.edu/ehs/documents/asu-bsc-sop.pdf.
www.geneodx.com

ANNEXURE

Annexure I

PPE

- Eye protection (Safety glasses)
- Disposable nitrile gloves
- Lab coat/tyvek (Disposable)
- Closed shoes with shoe cover
- Respirators may be required for some procedures. The nature of the Personal Protective Equipment (PPE) worn may vary according to the findings obtained from the biological risk assessment.