

In the name of God

**Magnetic bead COVID-19 RNA Extraction Kit (CN: KPG-VDREK) 100 reactions**

**Components of the kit:**

- Lysis solution (CN: KPG-KLS), 1 vial 80 mL
- Magnetic bead (CN:KPG-Mabead) 1 vial 20 mL
- Washing solution (CN: KPG-WS), 2 vial 80 mL
- RNase-DNase free water (CN: KPG-DW), 1 vial 5 mL

**Other materials are needed:** Samplers, Centrifuge, 1.5 mL microtubes

**Samples:** This kit was designed to extract **COVID-19 RNA** from Nasopharyngeal and Pharyngeal specimen. To extract , add the following volume:

**Experimental procedure**

- Add 500  $\mu$ L of Lysis solution to a microtube.
- Add 200 $\mu$ L samples to the microtube and vortex for 5 seconds, vigorously.
- Incubate for 5 min at room temperature.
- Add 200  $\mu$ L Magnetic bead to the microtube and vortex for 5s.
- Put the magnet strip in its place and wait for 30s.
- Discard the remain solution with sampler.
- Remove the magnet strip
- Add 800  $\mu$ L Washing solution to the microtube and then shake the microtube (up and down)
- Put the magnet strip in its place (wait for 30s) and discard remain solution with sampler completely .
- Add 50  $\mu$ L pre-warm (60 °C) DNase/ RNase free Water to high absorbance column and incubate for 4 min at room temperature.
- Put the magnet strip in its place and take the product . The **COVID-19 RNA** is ready for use or storage at -20/-70 °C

Note: To increase the yield of **COVID-19 RNA**, you can add 50  $\mu$ L DNase/ RNase free Water and incubate the microtube at 60 °C with thermoblock for 4 minutes.

**Safety directions:** The Lysis solution is tissue hazard material, hence, in the cases of contact with skin, eyes and ETC, wash with water and refer to hospital for additional medications.