

This protocol describes how to perform RNA affinity capture with Magnetic Instant Capture (MagIC) Beads of SARS-CoV-2 RNA from swab samples inactivated in VTM.

Product description:

The MagIC Beads RNA affinity purification kit contains:

Beads:

MagIC Beads supplied as a 5 mg/ml suspension in storage buffer.

The provided beads carry a pool of DNA hybridization probes covalently attached to the surface of the beads through their 5' ends. The probes are designed to hybridize specifically to the sequence of SARS-CoV-2 RNA.

Beads information summary:

	Number of reactions	Bead stock concentration	Probes/mg of beads	Recommended amount of beads per reaction
MagIC Beads SARS-CoV-2	x	5mg/ml	163 pmol	50 µg carrying ~8pmol of capture probes (10µl of stock bead suspension)

Other required materials (not provided):

- Magnetic rack
- Deionized, sterile water

Protocol:

Preparation of magnetic beads for the enrichment

1. Place the container with magnetic beads on the bench and allow the content to equilibrate to room temperature.
2. Resuspend the particles thoroughly.

Capture of the target RNA

1. Lyse the swab sample with method appropriate for the VTM in which the sample was collected.
2. Add 10 µl of well resuspended bead suspension to 50-2000 µl of the sample and mix well.
3. Incubate the sample for 10 min at room temperature.
4. Concentrate the beads on a magnet and discard the liquid.
5. Keep the beads concentrated and add 200-2000 µl of deionized, sterile water (MiliQ) (it is important for all the concentrated beads to get in contact with the water) and after 10-15 seconds discard all the liquid.
6. Assemble the Reverse Transcription/direct, one step RT-qPCR/SHERLOCK/RT-LAMP reaction with all reaction components directly with the beads and proceed with performing the detection reaction.

