

Apostle MiniGenomics™ Viral Total NA Isolation Automation protocol on Apostle MagTouch 1000 Automation Platform - Reagent Preparation

Version 2.1

Product description

The Apostle MiniGenomics™ Viral Total NA Isolation Fast kit is designed for rapid isolation of viral DNA or RNA from swab samples. The kit uses proprietary Apostle MiniMax™ technology, offers highly efficient, reproducible recovery of high-quality DNA and RNA with high yield. This kit is designed for input volume of 200 µL. The protocol is designed for 96-well plate automated on Apostle MagTouch 1000 Automation Platform.

Kit Content (64 x 96 preps)

Reagent	Volume	Storage
Lysis/Binding Solution*	4 x 367 mL	Room Temperature, in dark
Elution Solution	1 x 800 mL	

* Add EtOH according to the bottle instruction before use.

Required materials

Apostle MagTouch 1000
 Apostle 96-well plates and 96-tip comb
 Adjustable single and multi channel micropipettes (1 mL, 200 uL, 20 uL) and tips
 Liquid reservoirs
 Vortex or shaker
 Ethanol, 200 proof
 DNase/RNase free water

Procedure

A. Prepare Reagents Before Use

1. Prepare Lysis/Binding Solution: Add 500 mL pure ethanol to 367 mL Lysis/Binding Solution according to the bottle instruction.
2. Prepare 80% Ethanol.

B. Set up Processing Plates


1. Mix well the prepared Lysis/Binding Solution and 80% Ethanol before use.
2. Set up the 96 well plates according to the table below, outside the instrument*:

Plate Position	Plate Type	Plate ID	Content	Reagent volume for each well
1	96 well plate	Bind	Lysis/Binding Solution (EtOH added)**	520 µL
			Sample	200 µL
2	96 well plate	EtOH	80% Ethanol	500 µL
3	96 well plate	EtOH	80% Ethanol	500 µL
4	96 well plate	Elution	Elution Solution	85 µL
5	96 well plate with comb	Comb	-	-

* Check 96 well plate integrity before loading reagents, to avoid leakage of certain wells.

** Always mix the bottle of Lysis/Binding Solution well right before pouring into reagent reservoir, which is used to load plates, as the magnetic beads can precipitate and compromise results. Also vortex the reagent reservoir for Lysis/Binding Solution before adding more Lysis/Binding Solution.

C. Automated viral Total NA isolation on Apostle MagTouch 1000 Automation Platform

1. Initialize the instrument, then press the [Quick Start] button.
2. Select the built-in [viral RNA 2.0] program and place the plates into the Apostle MagTouch 1000 as indicated on the instrument display. (Note: Make sure that the plates are placed steadily in correct orientation. Ensure that the A1 well is in the upper right corner of the plate holder on turntable. A1 row of the plate is then always located in the inner circle of the turntable.)
3. After placing all the plates, press the  icon on the interface to start the program.
4. When the program complete, collect the purified viral RNA from the elution plate.
5. For long term storage, store the samples at -80 °C.