

SPLIT Rapid Viral RNA/DNA Extraction Kit

- Isolation of high-quality RNA from fluid samples
- Rapid 15-minute protocol validated for viral applications
- Inhibitor-free RNA ready-to-use in RT-qPCR and targeted RNA-Seq assays

Introduction

The spread of COVID-19 caused by SARS-CoV-2 has emphasized the need for high-throughput screenings for viral infections. For these to be fast and efficient, an equally capable protocol for the isolation of viral RNA is required. Lexogen has therefore designed the SPLIT Rapid Viral RNA/DNA Extraction Kit to specifically enable isolation of high-quality RNA and DNA from liquid samples within 15 minutes using a streamlined protocol.

Protocol & Features

The kit simplifies the isolation of viral RNA from samples such as nasopharyngeal and buccal swabs by using a spin column format (Fig. 1). First, the sample is lysed in a highly chaotropic isolation buffer which facilitates complete solubilization and guarantees RNase inhibition. Isopropanol is added to the sample before loading onto a silica micro-spin column causing the RNA to bind specifically. Contaminants such as PCR inhibitors, divalent cations, and proteins are removed in three wash steps, and pure viral RNA is recovered in an elution buffer.

Benefits

- **Fast and Easy:** Isolate viral RNA in only 15 minutes and complete 24 samples in 25 minutes.
- **Economical:** Only a standard centrifuge is required.
- **Ready-to-use RNA:** Obtain inhibitor-free RNA of high purity and integrity for immediate use in RT-qPCR, reverse transcription, and targeted RNA-Seq.
- **Validated:** SARS-CoV-2 RNA was extracted from buccal swab samples in virus transport medium (VTM). Compatible with HBSS and PBS.

High-throughput Option

The protocol is transferable to magnetic beads for plate-based, automatable high-throughput RNA extraction. For further details and support please contact support@lexogen.com.

SPLIT Rapid Viral RNA/DNA Extraction Kit (Cat. No. 138.400). The kit contains material for 400 extractions. Bulk options are available.

The kit is intended for use in research and development. Validation is required for integration into a specific diagnostic workflow.

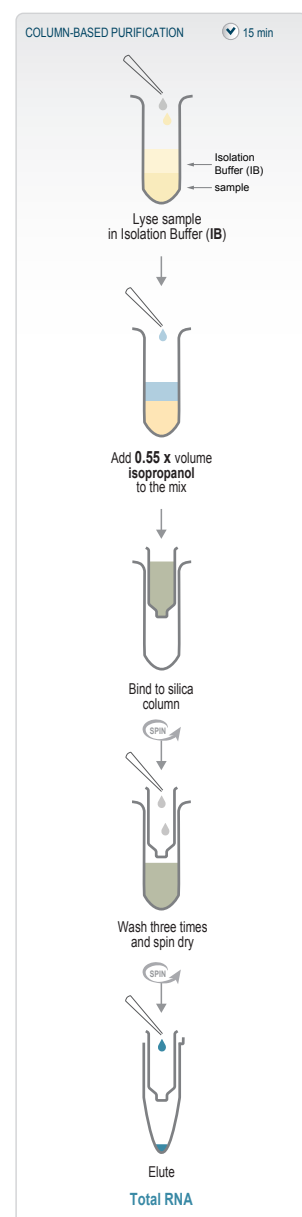


Figure 1 | Schematic overview of the SPLIT Rapid Viral RNA/DNA Extraction Kit workflow.