

# RNAGEM

***RNAGEM – effortless, simultaneous, total nucleic acid extraction... in minutes not hours.***

RNAGEM utilizes MicroGEM's novel thermophilic proteinase and buffer system to extract total nucleic acids in less than 25 minutes without the need for purification.

***Sample Types:*** solid tissue, cell culture, single-cell & exosomes

***Downstream applications:*** PCR, RT-PCR, RT-qPCR, LAMP & RT-LAMP, Nanostring

***Key advantages:***

- Single-Tube Nucleic acid extraction in less than 25 minutes
- Simultaneous Total Nucleic Acid Extraction – genomic DNA, mRNA, long non-coding RNA, small non-coding RNA
- No ionic detergents or chaotropic salts
- High nucleic acid recovery - Minimal loss of nucleic acids during extraction
- No magnetic beads – No spin-columns
- Flexibility - suitable for low-throughput to high-throughput extraction with a single protocol
- Easily automated using standard liquid handling solutions
- Minimal plasticware required - Reduced waste and supply chain issues

Each kit contains: RNAGEM, **BLUE** Buffer, DNase I, DNase Buffer, TE Buffer

*RNAGEM is for research use only (RUO), not intended for in-vitro diagnostic (IVD) use.*

*Image shows 100, 500 and 1,000 reaction kits.*



# Typical Workflow

*RNAGEM* protocols can be scaled up or down as needed.



1. Prepare sample.

2. Mix sample and reagents.



3. Heat mixture at 75°C to activate *RNAGEM* enzyme.

4. **(Optional)** DNA digestion at 37°C.

5. Denature *RNAGEM* enzyme at 95°C.



6. This solution now contains nucleic acid ready for PCR based applications.

