

# Temperature-Driven Nucleic Acid Extraction

## Quicker Extractions | Faster Results | Timely Decisions

Minimize time spent on the extraction process. Get high-quality extracts in minutes, not hours. Move quickly to analysis.

## Rapidly pivot to results and timely decisions.

We set the standard for DNA and RNA extractions where speed, sample size, yield, and a simplified workflow are important. Our single-tube extractions produce high-quality nucleic acids without the overuse of plastic. Reduced handling saves time with fewer opportunities for contamination.

Our enzymes are derived from extremophiles living in the most diverse environments in the world. We use their naturally-occurring temperature activations to lyse cells and effortlessly extract nucleic acids ready for use.

No harsh detergents. No denaturants. No complex, time-consuming steps.

## That's effortless temperature-driven nucleic acid extraction.

#### prepGEM™ Universal



Ideal for blood, saliva, cell culture, and tissue (including mouse tails, ear punches, and insect)

Produces single-stranded DNA for PCR, qPCR, whole genome amplification, and amplicon sequencing and is perfect for screening CRISPR/Cas9 gene editing with NGS

#### prepGEM™ Bacteria



Ideal for Gram-positive and Gram-negative, protozoa, archaea, colonies and liquid cultures, biofilm and mucosal samples, swabs and metagenomic DNA (including soil, stool, and water)

Produces single-stranded DNA for PCR, qPCR, whole genome amplification, amplicon sequencing, and 16S rDNA sequencing

#### forensicGEM™ Universal



Ideal human ID solution for blood (liquid, swab, stains, storage card), saliva (liquid, swab, stains, storage card), and tissue (solid, dispersed, fingernail, hair)

Produces single-stranded DNA for STR, PCR, qPCR, and whole genome amplification

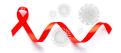
#### forensicGEM™ Sperm



Ideal for sperm cells, semen, semen stains, and vaginal swabs

Produces single-stranded DNA for STR, PCR, and qPCR, and is perfect for differential extractions and Y screening

#### **RNAGEM™**



Ideal for mammalian cell culture, laser capture micro-dissections and FACS-prepared cell populations

Suitable for RT-PCR and RT-qPCR; can be added directly to downstream reagents for a simple protocol on 96 well plates

**MicroGEM** 



## **PDQeX Nucleic Acid Extractor**

## Sophisticated simplicity for effortless DNA and RNA extractions

MicroGEM's PDQeX Nucleic Acid Extractor brings together powerful proteinases and mesophilic cell wall degrading enzymes with an innovative extractor cartridge. Made from thermoresponsive polymers, the cartridge releases nucleic acids and removes inhibitors from the extracts.

Together with the temperature control unit, the single-tube system quickly lyses cells, destroys nucleases, digests proteins, and releases high-quality nucleic acids.

- Extremely fast extractions (minutes, not hours)
- Reduced potential for contamination
- Suitable for large sample sizes (>200,000 cells) for NGS
- Perfect for labs looking for a fast, hands-free extraction process > Optimized to handle tough samples
- Simplified, unattended operation

MicroGEM

#### PDQeX prepGEM™ Universal



Ideal for blood, saliva, cell culture, and tissue (including mouse tails, ear punches, and insect) Produces double-stranded DNA for PCR, qPCR, whole genome amplification, amplicon sequencing, Minion and is perfect for NGS and other methods that use constructed libraries

#### PDQeX prepGEM™ Bacteria



Ideal for Gram-positive and Gram-negative, protozoa, archaea, colonies and liquid cultures, biofilm and mucosal samples, swabs and metagenomic DNA (including soil, stool, and water)

Produces double-stranded DNA for PCR, qPCR, whole genome sequencing, amplicon sequencing, Minion, and 16S rDNA sequencing

**PDQeX** forensicGEM™ Universal



Ideal human ID solution for blood (liquid, swab, stains, storage card), saliva (liquid, swab, stains, storage card), and tissue (solid, dispersed, fingernail, hair)

Produces double-stranded DNA for STR, PCR, and gPCR

**PDOeX** forensicGEM<sup>™</sup> Sperm



Ideal for sperm cells, semen, semen stains, and vaginal swabs

Produces double-stranded DNA for STR, PCR, and qPCR, and is perfect for differential extractions and Y screening

phytoGEM<sup>™</sup>



Ideal for studying plant genotypes and genetic variation, endophytic plant pathogens, genetic mapping, fingerprinting, microsatellite marker-assisted selection, and evaluating the authenticity of exported plant varieties, botanical extracts, and molecular detection of food adulterants

Produces high quality DNA for PCR and qPCR