



# ORDERING INFORMATION & PRODUCT GUIDE



### prepGEM™ Universal Kit

- Ideal for blood, saliva, and tissue including animal (ear punches, mouse tails, insect) and cell culture.
- Produces single-stranded DNA for STR, PCR, qPCR, whole genome amplification, and amplicon sequencing.
- Perfect for CRISPR/Cas9 genotyping.

# Reactions	Product Code	Each Kit Includes
50	PUN0050	✓ prepGEM
100	PUN0100	✓ Histosolv
500	PUN0500	✓ BLUE Buffer
1000	PUN1000	✓ RED+ Buffer
		✓ ORANGE+ Buffer



Image shows 100, 500 and 1,000 reaction kits

### prepGEM™ Bacteria Kit

- Suitable for processing Gram-positive bacteria, Gram-negative bacteria, protozoa, archaea, colonies and liquid cultures, biofilm and mucosal samples, swabs, and metagenomic DNA including soil, stool, and water.
- Produces single-stranded DNA suitable for PCR, qPCR, targeted sequencing (amplicon sequencing) from metagenomic samples, and 16S rDNA sequencing.

# Reactions	Product Code	Each Kit Includes
50	PBA0050	✓ prepGEM
100	PBA0100	✓ Lysozyme
500	PBA0500	✓ GREEN+ Buffer
1000	PBA1000	✓ Enhancer
		✓ Wash



Image shows 100, 500 and 1,000 reaction kits

### RNAGEM™ Kit

- Ideal for mammalian cell culture, laser capture microdissections (LCM), and FACS-prepared cell populations such as macrophages.
- Suitable for RT-PCR and RT-qPCR.

# Reactions	Product Code	Each Kit Includes
50	RTP0050	✓ RNAGEM
100	RTP0100	✓ DNase I
500	RTP0500	✓ BLUE Buffer
1000	RTP1000	✓ 10x DNase Buffer
		✓ 10x TE



Image shows 100, 500 and 1,000 reaction kits

To order, visit [www.microgembio.com/products/](http://www.microgembio.com/products/).

### forensicGEM® Universal Kit

- Ideal for saliva (liquid, swab, stains, storage card – FTA), blood (liquid, swab, stains, storage card - FTA), and tissue (solid, hair).
- Produces high-quality single stranded DNA proven for use with STR, PCR, qPCR and whole genome amplification.

# Reactions	Product Code	Each Kit Includes
50	FUN0050	<ul style="list-style-type: none"> <li>✓ forensicGEM</li> <li>✓ Histosolv</li> <li>✓ BLUE Buffer</li> <li>✓ RED+ Buffer</li> <li>✓ ORANGE+ Buffer</li> </ul>
100	FUN0100	
500	FUN0500	
1000	FUN1000	



Image shows 100, 500 and 1,000 reaction kits

### forensicGEM® Sperm Kit

- Ideal for liquid samples, dried samples, and stains.
- Produces single-stranded DNA validated for use with STR, PCR, and qPCR.
- Perfect for Y-screening and differential extractions.

# Reactions	Product Code	Each Kit Includes
50	FSC0050	<ul style="list-style-type: none"> <li>✓ forensicGEM</li> <li>✓ Acrosolv</li> <li>✓ ORANGE+ Buffer</li> </ul>
100	FSC0100	
500	FSC0500	
1000	FSC1000	



Image shows 100, 500 and 1,000 reaction kits

Sample Types – with any PCR Thermal Cycler	Life Sciences	Forensics	Average Sample Prep/ Extraction Times*	Recommended Kit
<b>Cell Culture</b> – Cell suspensions, adherent cells, cell pellets, cells obtained by fluorescence-activated cell sorting (FACS) or laser capture microdissection (LCM)	✓		15 min	prepGEM Universal Kit
<b>Sperm</b> – Sperm cells, semen, semen stains, vaginal swabs, animal genetic breeding		✓	20 min	forensicGEM Sperm Lysis Kit
<b>RNA</b> – Mammalian cell culture, cells obtained by LCM, cell population prepared by FACS, macrophages	✓		15 min	RNAGEM Kit
<b>Blood</b> – Liquid (fresh, EDTA, heparin, citrate), swabs, stains, memory card (FTA)	✓		20 min	prepGEM Universal Kit
		✓	20 min	forensicGEM Universal Kit
<b>Solid Tissue</b> – Including animals (scrappings, fat, muscle), mouse and rat tail tips, ear tags, fins, insects, and living tissue sections	✓		25 min	prepGEM Universal Kit
		✓	25 min	forensicGEM Universal Kit
<b>Saliva</b> – Liquid, buccal swab, stain, memory card (FTA)	✓		15 min	prepGEM Universal Kit
		✓	15 min	forensicGEM Universal Kit
<b>Bacteria</b> – Gram-positive bacteria, Gram-negative bacteria, protozoa, colonies and liquid cultures, biofilms and mucous membranes, archaea, swabs, metagenomic DNA (soil, stool and water)	✓		37 min	prepGEM Bacteria Kit

\* PLEASE NOTE: Sample preparation time is included to show the maximum time required using the MicroGEM kits. Most of this time is hands-free during the extraction process.

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### PDQeX prepGEM Universal Kit

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

# Reactions	Product Code	Each Kit Includes
50	XPU0050	✓ PDQeX prepGEM
100	XPU0100	✓ Histosolv
500	XPU0500	✓ BLUE Buffer
1000	XPU1000	✓ ORANGE+ Buffer
		✓ Enhancer



Image shows 100, 500 and 1,000 reaction kits

### PDQeX prepGEM Bacteria Kit

- Suitable for processing Gram-positive bacteria, Gram-negative bacteria, protozoa, archaea, colonies and liquid cultures, biofilm and mucosal samples, swabs, and metagenomic DNA including soil, stool, and water.
- Double-stranded DNA extracts suitable for whole genome sequencing, PCR, qPCR, targeted sequencing (amplicon sequencing) from metagenomic samples – 16S rDNA sequencing.

# Reactions	Product Code	Each Kit Includes
50	XBA0050	✓ PDQeX prepGEM
100	XBA0100	✓ Lysozyme
500	XBA0500	✓ GREEN+ Buffer
1000	XBA1000	✓ Enhancer
		✓ Wash



Image shows 100, 500 and 1,000 reaction kits

### PDQeX phytoGEM® Kit

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

# Reactions	Product Code	Each Kit Includes
50	XPP0050	✓ PDQeX prepGEM
100	XPP0100	✓ Histosolv
500	XPP0500	✓ GREEN+ Buffer
1000	XPP1000	✓ Enhancer



Image shows 100, 500 and 1,000 reaction kits

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### PDQeX forensicGEM Universal Kit

- Generates closed-tube, hands-free purified double-stranded DNA from blood, saliva, and tissue (for cigarettes, please use forensicGEM Universal Kit with your thermal cycler).
- Ideal for high throughput screening and STR, PCR, and qPCR.

# Reactions	Product Code	Each Kit Includes
50	XFU0050	<ul style="list-style-type: none"> <li>✓ PDQeX forensicGEM</li> <li>✓ Histosolv</li> <li>✓ BLUE Buffer</li> <li>✓ ORANGE+ Buffer</li> <li>✓ Enhancer</li> </ul>
100	XFU0100	
500	XFU0500	
1000	XFU1000	



Image shows 100, 500 and 1,000 reaction kits

### PDQeX forensicGEM Sperm Kit

- Generates closed-tube, hands-free purified double-stranded DNA.
- Ideal for high throughput screening and STR, PCR, and qPCR.

# Reactions	Product Code	Each Kit Includes
50	XSC0050	<ul style="list-style-type: none"> <li>✓ PDQeX forensicGEM</li> <li>✓ Acrosolv</li> <li>✓ ORANGE+ Buffer</li> </ul>
100	XSC0100	
500	XSC0500	
1000	XSC1000	



Image shows 100, 500 and 1,000 reaction kits

Sample Types – with PDQeX Nucleic Acid Extractor	Life Sciences	Forensics	Average Sample Prep/Extraction Times*	Recommended Kit
<b>Cell Culture</b> – Cell suspensions, adherent cells, cell pellets, cells obtained by fluorescence-activated cell sorting (FACS) or laser capture microdissection (LCM)	✓		16 min	PDQeX prepGEM Universal Kit
<b>Sperm</b> – Sperm cells, semen, semen stains, vaginal swabs, animal genetic breeding		✓	25 min	PDQeX forensicGEM Sperm Kit
<b>Blood</b> – Liquid (fresh, EDTA, heparin, citrate), swabs, stains, memory card (FTA)	✓		25 min	PDQeX prepGEM Universal Kit
		✓	25 min	PDQeX forensicGEM Universal Kit
<b>Solid Tissue</b> – Including animals (scrape, fat, muscle), mouse and rat tail tips, ear tags, fins, insects, and living tissue sections	✓		27 min	PDQeX prepGEM Universal Kit
		✓	27 min	PDQeX forensicGEM Universal Kit
<b>Saliva</b> – Liquid, buccal swab, stain, memory card (FTA)	✓		16 min	PDQeX prepGEM Universal Kit
		✓	16 min	PDQeX forensicGEM Universal Kit
<b>Bacteria</b> – Gram-positive bacteria, Gram-negative bacteria, protozoa, colonies and liquid cultures, biofilms and mucous membranes, archaea, swabs, metagenomic DNA (soil, stool and water)	✓		42 min	PDQeX prepGEM Bacteria Kit
<b>Plant</b> – Leaves, branches, roots, seeds, plant pathogens, fungi	✓		19 min	PDQeX phytoGEM Kit

\* PLEASE NOTE: Sample preparation time is included to show the maximum time required using the MicroGEM kits. Most of this time is hands-free during the extraction process.

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## PDQeX Nucleic Acid Extractor

- Ideal for PCR, qPCR, STR, and whole genome sequencing.
- Optimized for lysis and purification for double-stranded sequencing; also produces high-quality single-stranded extractions.
- Simplified workflow in a single closed-tube system to handle challenging samples such as plant and fungi.
- Perfect for labs looking for fast, hands-free, programmable sample processing.
- Produces DNA in less than 20 minutes.

### Technical Specifications:

- **Sample Capacity:** 24 samples, standard 96-well spacing
- **For use with:** PDQeX cartridges (200 µL)
- **Interface:** 5 in. touchscreen (color)
- **Voltage (24 V DC adapter included):** 100-240 VAC, 2A, 50/60 Hz
- **Power:** 96 watts at peak draw
- **Thermal Profiles:** Pre-installed & user programmable
- **Programmable Thermal Range:** 34° C to 120° C
- **Dimensions (L x W x H):** 22 cm x 18 cm x 18.5 cm (8.5 in x 7 in x 7.25 in)
- **Weight:** 4.8 kg (10.6 lbs)



Product Code	Description
XMA	PDQeX Nucleic Acid Extractor

## phytoGEM Starter Kit

- The essential tools needed to fully maximize the impact of your PDQeX Nucleic Acid Extractor and to prepare your plant samples for DNA extraction.
- Includes one crusher tool, one punch and tip, 50 phytocards, and 50 *phytoGEM* reactions.

Product Code	Description
PSP	<i>phytoGEM</i> Starter Kit



## phytoGEM Cards

- Used with the PDQeX *phytoGEM* Crusher Tool and Punch Tool when transferring samples for processing and storage.

Product Code	Product Code	Description
500	PCA0500	<i>phytoGEM</i> Cards
1000	PCA1000	<i>phytoGEM</i> Cards



To order, visit [www.microgembio.com/products/](http://www.microgembio.com/products/).

## PDQeX *phytoGEM* Punch Tool and Tip

- The punch tool is used to cut out a portion of the storage card containing the sample and transferring it into the PDQeX cartridge.
- The punch tool comes with a pre-attached tip that is capable of performing up to 1,000 punches.
- Replacement tips are also available for purchase.

Product Code	Description
PCP	PDQeX <i>phytoGEM</i> Punch Tool and Tip



## PDQeX *phytoGEM* Punch Tool Replacement

- Used with MicroGEM™ storage cards to cut out sample and transfer to a PDQeX cartridge.

Product Code	Description
PCT	PDQeX <i>phytoGEM</i> Punch Tool Replacement Tip



## PDQeX *phytoGEM* Crusher Tool

- Simply and quickly crushes plant tissue onto a *phytoGEM* storage card for easy collection, transportation, and storage.
- Sampling can be done in the field or greenhouse.
- No need to freeze or grind samples.
- Simple sampling procedure (crushing plant tissue onto a storage card) provides a long-term storage solution.
- Streamlined approach provides plant to PCR-ready DNA from up to 24 samples of plant tissue, fungi, or plant pathogens in less than 20 minutes.
- Uses temperature-driven enzymatic lysis and purification all in a single closed-tube system.

Product Code	Description
PSC	PDQeX <i>phytoGEM</i> Crusher Tool



To order, visit [www.microgembio.com/products/](http://www.microgembio.com/products/).



**Your local MicroGEM distributor can be contacted at:-**

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