

X8™ Genomic DNA Cartridge Kit

For use with Xceler8™ Platform



Advancing human health
through innovation



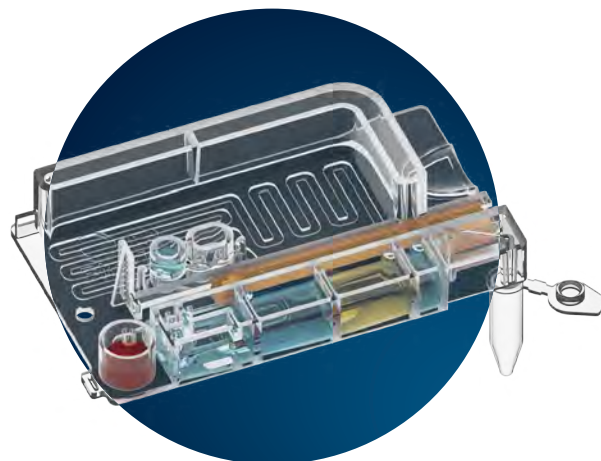
One BioMed

X8™ Genomic DNA Cartridge Kit

Rapid, efficient and beyond simple.

Our proprietary chemistry and integrated cartridge architecture rapidly automates genomic DNA (gDNA) extraction and purification from cell culture, Peripheral Blood Mononuclear Cells (PBMCs) and bacterial sample types.

The ready-to-use X8 Cartridge Kits comes with all the necessary reagents, including proteinase K, thereby limiting the manual steps on the Xceler8 Platform to simply loading the sample into the cartridge. The X8 Cartridge Kits are non-volatile and ethanol-free, making them easy to ship and store at room temperature.



PLATFORM HIGHLIGHTS



Simple operation. Ensure high-quality gDNA extraction with the push of a button.



Ready-to-use. Easily process samples in cartridges, packed with all essential reagents, including Proteinase K.



Versatile workflow. Gain unparalleled flexibility with random-access sample loading.



Reliable cleaning. Minimize clean up & cross-contamination with fully closed architecture and built-in waste reservoir.



Rapid run-time. Run up to 8 samples under an hour, without sample batching.



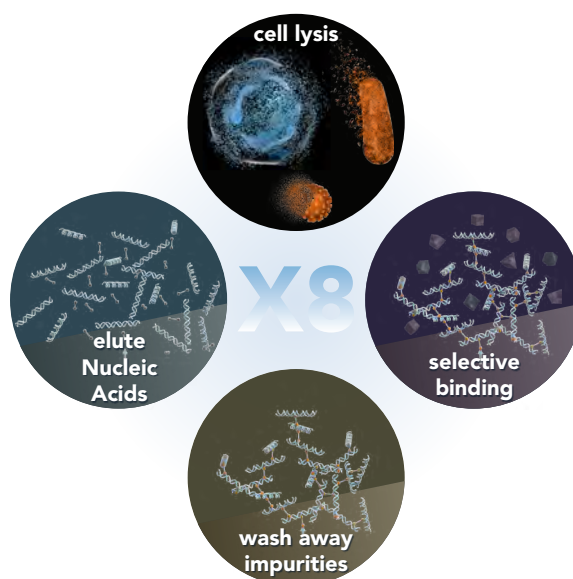
Sample volumes. Input volume 200 μ L and elution volume is 50- 200 μ L.

Powered by Xceler8™ Technology

Breakthrough Technology

Unlike typical commercial spin-column or magnetic-bead technologies, the disruptive Xceler8 Technology significantly expedites and seamlessly automates the process of gDNA extraction and purification.

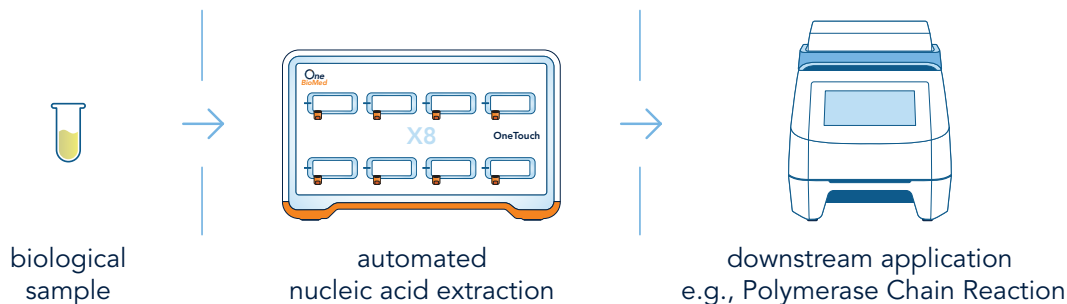
The novel chemistry-based approach yields high quality and quantity of gDNA. A reversible cross-linker selectively binds & clusters the released gDNA from the lysed sample on to the surface of the cartridge. Once impurities are washed away & sealed in the built-in waste reservoir, the purified gDNA is released and eluted using an elution buffer.



X8 Workflow

Fit seamlessly into your existing workflow

Use the automated X8 Platform to get consistent and reproducible nucleic acid extraction from cell culture, Peripheral Blood Mononuclear Cells (PBMCs), Gram-positive and Gram-negative bacterial samples.



Comparative performance of gDNA yield

SAMPLE TYPE	CELL COUNT	SAMPLE	CT VALUE	YIELD (µg)	A (260/280)
Jurkat cells	2×10^6	Company Q	24.46	7.4	1.92
		X8-1	24.23	7.9	1.83
		X8-2	24.22	7.7	1.86
<i>S. Typhi</i>	2×10^9	Company Q	16.22	3.6	2.01
		X8-1	16.42	5.9	1.89
		X8-2	16.55	5.2	1.86
<i>S. agalactiae</i>	1×10^9	Company Q	12.03	3.2	1.92
		X8-1	12.13	5.0	1.86
		X8-2	12.0	5.2	1.88

High Genomic DNA yield with X8

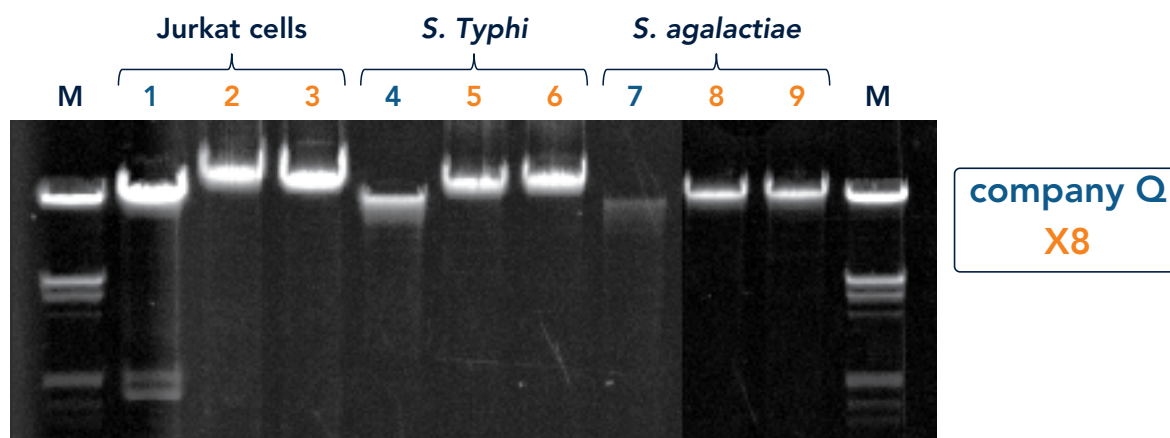


Figure 1. Genomic DNA was isolated from cell culture, Gram- and Gram+ bacteria respectively, using a manual kit from Company Q and replicates of automated X8 Genomic DNA Cartridge Kit. The purified DNA was then analyzed on 0.8% agarose gel and stained with a fluorescent dye. M= DNA molecular marker.

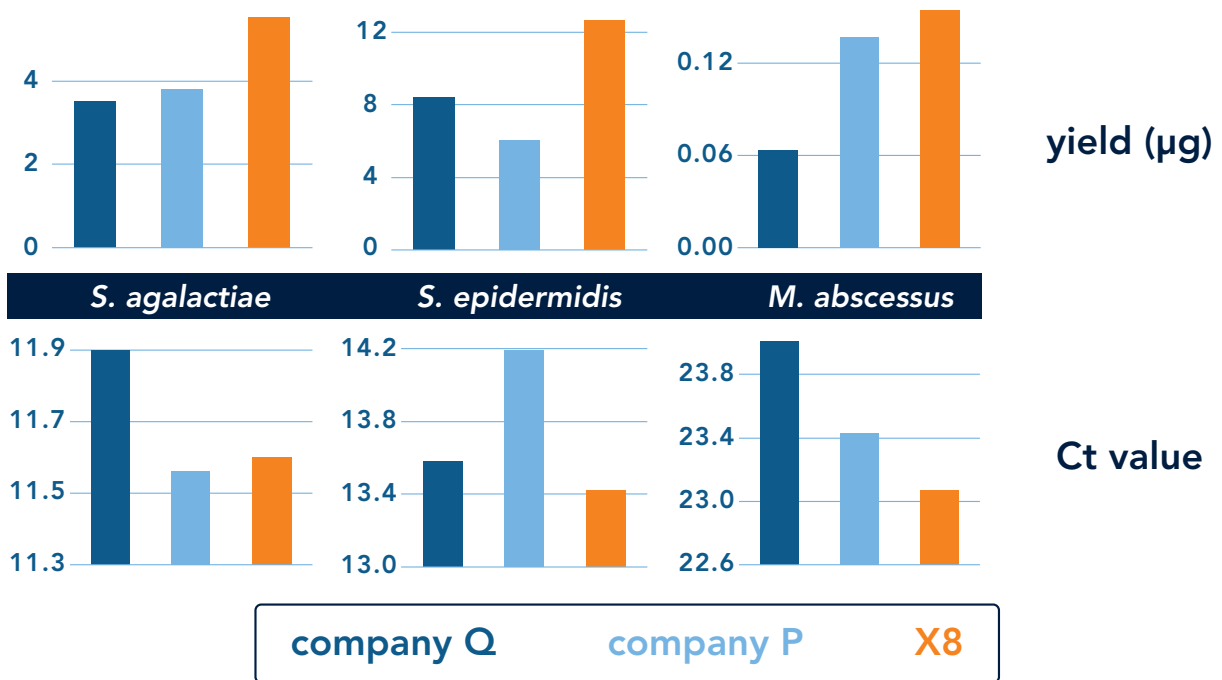


Figure 2. Genomic DNA was purified from several species of Gram+ bacteria using the automated X8 Genomic DNA Cartridge Kit and two commercial manual kits. The yield and Ct values* (from RT-PCR) were quantified in a bar graph. *Ct values are inversely proportional to amount of nucleic acid in the sample.

Xceler8 Products

INSTRUMENT		CATALOG NO.
X8 OneTouch Instrument		X8-OT-101-IN
CARTRIDGE KITS, 24 PREPS		CATALOG NO.
DNA	X8 HMW DNA Kit	X8-HD-001-24
	X8 Genomic DNA Kit	X8-GD-001-24
	X8 Tissue DNA Kit	X8-TD-001-24
RNA	X8 Cellular RNA Kit	X8-CR-001-24
	X8 Tissue RNA Kit	X8-RT-001-24
	X8 Viral RNA Kit	X8-VR-001-24

Research Areas

- Cancer research
- Infectious diseases
- Genetic disorders

Application Areas

- Genomic Sequencing
- Polymerase Chain Reaction (PCR)
- Agarose Gel Electrophoresis

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