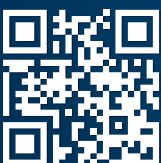
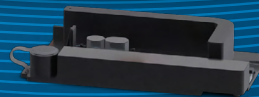


# X8™ Genomic DNA Cartridge Kit

For use with Xceler8™ Platform



Advancing human health  
through innovation

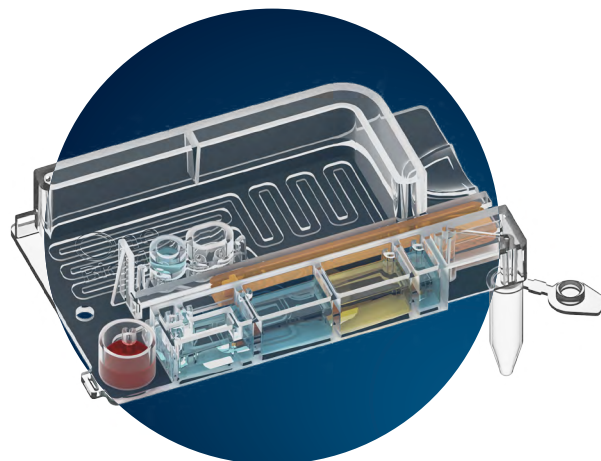
One BioMed

## 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 buffy coat, cell culture and bacterial sample types.

The ready-to-use X8 Cartridge Kits come pre-filled with all 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 gDNA extraction performance with the push of a button.



**Ready-to-use.** Easily process samples in cartridges, pre-filled 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 samples in as little as 30 minutes without sample batching.



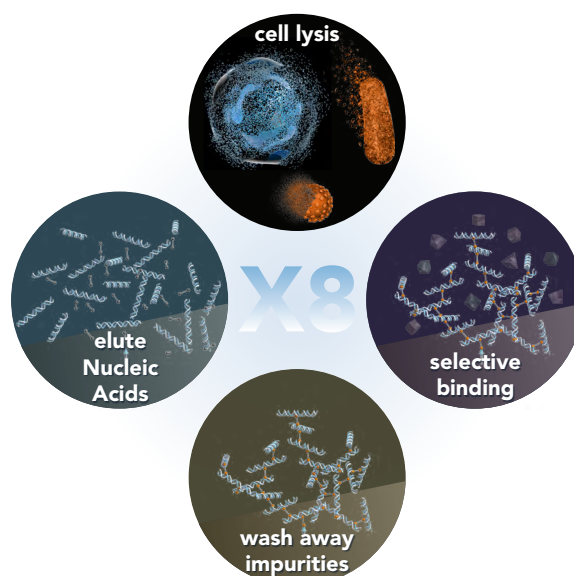
**Sample volumes.** Input volume up to 400 µL and elution volume is 200 µL.

## 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.

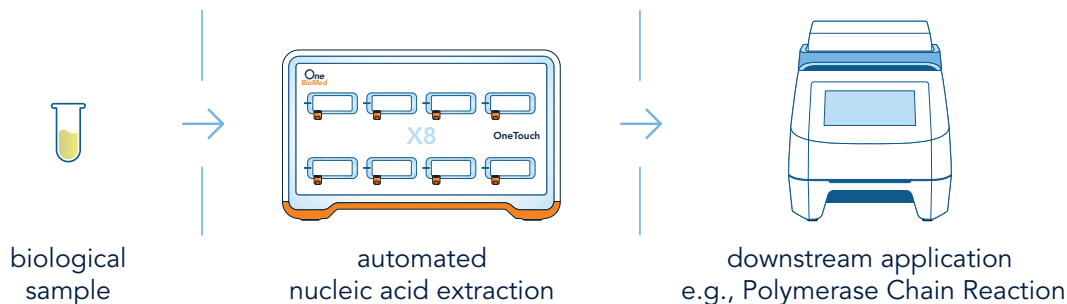
The novel chemistry-based approach yields high quality and quantity of gDNA. A reversible cross-linker selectively binds & clusters the released gDNA from the lysed sample on to the surface of the cartridge. Once impurities are washed away & sealed in the built-in waste reservoir, the purified gDNA is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



## X8 Workflow

### Fit seamlessly into your existing workflow

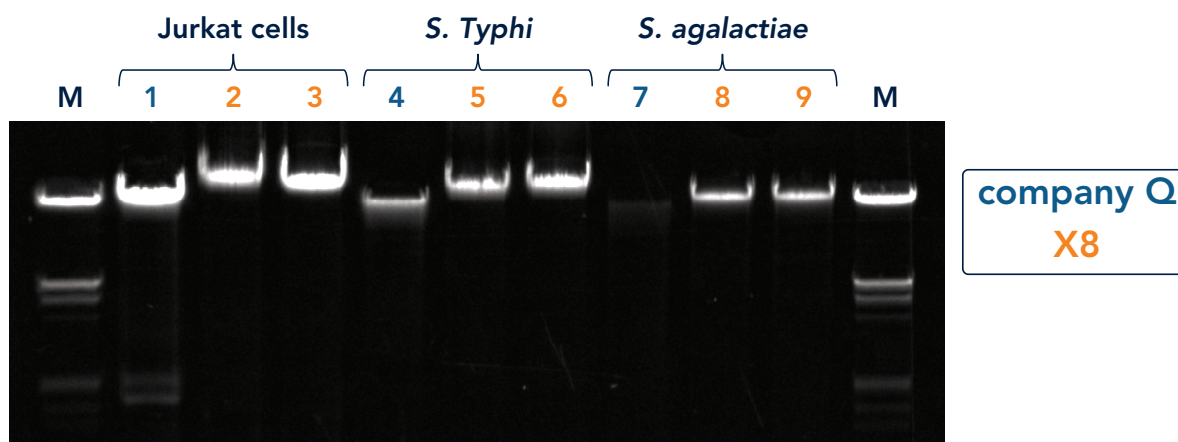
Use the automated X8 Platform to get consistent and reproducible nucleic acid extraction from bacteria, cell culture, as well as buffy coat samples.



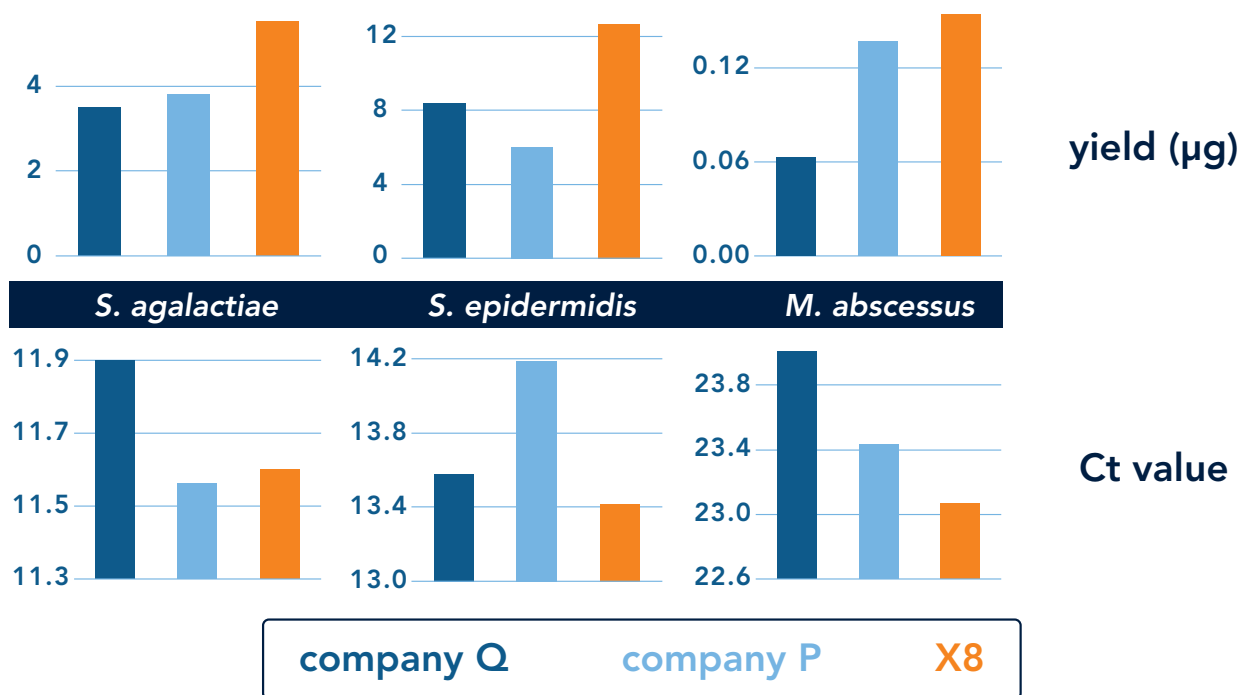
## Comparative performance of gDNA yield

SAMPLE TYPE	CELL COUNT	SAMPLE	CT VALUE	YIELD (µg)	A (260/280)
Jurkat cells	$2 \times 10^6$	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>	$2 \times 10^9$	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>	$1 \times 10^9$	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 DNA yield with X8

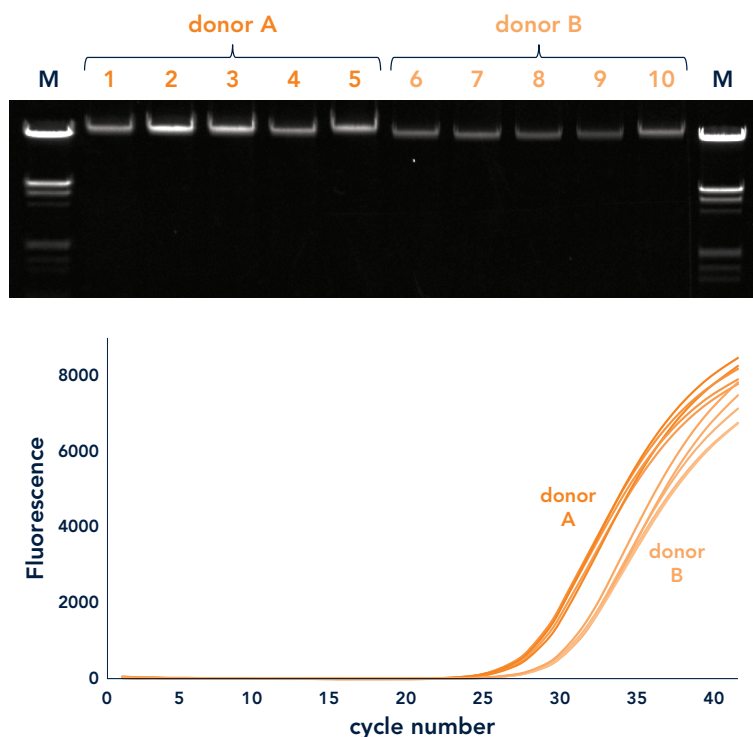


**Figure 1.** Genomic DNA was isolated from cell culture, gram- and gram+ bacteria respectively, using a manual kit from Company Q and replicates of automated X8 Genomic DNA Cartridge Kit. The purified DNA was then analyzed on 0.8% agarose gel and stained with a fluorescent dye. M= DNA molecular marker.



**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.

## Reproducible extraction performance with X8



**Figure 3.** Genomic DNA isolated from 250 µL of buffy coat samples using the X8 Genomic DNA Cartridge Kit (5 replicates from each donor). Top: The purified DNA was analyzed on a 0.8% agarose gel and stained with a fluorescent dye. M=DNA molecular marker. Bottom: Detection of GAPDH gene using RT-PCR.

## Xceler8 Products

INSTRUMENT		PRODUCT CODE
X8 OneTouch Instrument		X8-OT101
CARTRIDGE KITS, 24 PREPS		
DNA	X8 Genomic DNA Kit	X8-GD01001-24
	X8 Tissue DNA Kit	
RNA	X8 Total RNA Kit	Coming soon
	X8 Viral RNA Kit	

## Research Areas

- Cancer research
- Infectious diseases
- Genetic disorders

## Application Areas

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

### Contact us

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