



AMPure XP

Manual or Automated Purification and Clean-up

Nucleic acid purification and clean-up are mandatory for genomic applications including sequencing, qPCR/ddPCR/PCR, microarrays and other enzymatic reactions. Maximizing recovery, consistency, and speed to facilitate the entire NGS workflow, AMPure XP is optimized to meet the stringent needs of today's genomic applications and to minimize the risk of losing important genetic information.

- High recovery of amplicons, greater than 100 bp
- Efficient removal of unincorporated dNTPs, primers, primer dimers, salts and other contaminants
- Predictable and consistent size selection

Don't lose critical data

When so much more has been invested in your research, AMPure XP is the only choice for purification and clean-up steps. Loss of yield during this critical step leads to loss of discovery in your research.



Simulated Relative Costs of Performing Whole Genome NGS



Figure 1. Relative costs of the different steps required to perform various NGS applications. Steps include extraction, library construction, library enrichment, clean-up and sequencing. Costs were calculated based on average list price of commercially available kits and reagents in 2017. Clean-up efficiencies were calculated by determining the total DNA yield by Picogreen Assay after performing a clean-up procedure on a known amount of DNA. The percent yield relative to AMPure XP performance was then used to calculate the impact of efficiency on various commercially available library construction methods and a change in purification reagent.

NGS experts have and will continue to choose AMPure XP

Only AMPure XP provides predictable performance while maintaining efficient recovery proven by the relative difference between the reference and 1.8x ratio in the traces below.

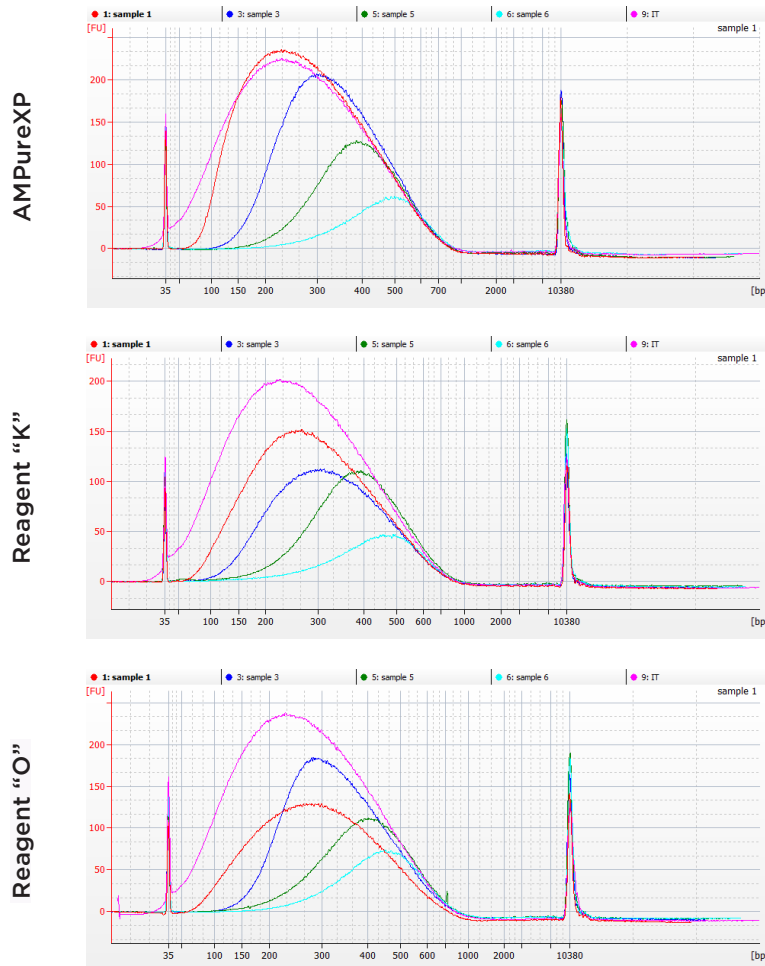


CHART COLOR	Bead/Sample Ratio
PINK	Input/Reference
RED	1.8X
BLUE	0.9X
GREEN	0.7X
AQUA	0.6X

Quality and Performance Matter
 "Our findings suggest AMPure XP would be the best choice for analyses requiring very high analytical stringency."

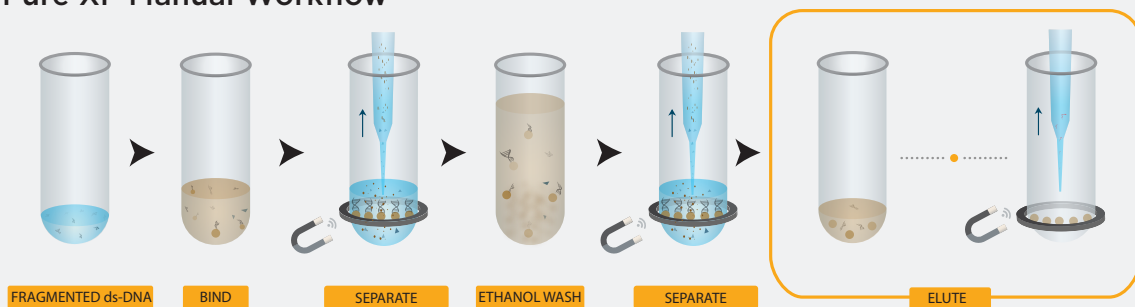
Andrey Mikheikin,
 Anita Olsen, Loren Picco,
 Oliver Payton, Bud Mishra,
 James K. Gimzewski,
 and Jason Reed

(2016). *Analytical Chemistry*, 88(5), 2527-2532.

DOI: 10.1021/acs.analchem.5b04023

Figure 2. Agilent TapeStation traces of sheared gDNA purified using Ampure XP, Reagent "O", and Reagent "K". Clean-ups were performed using 1.8x (red), 0.9x (blue), 0.7x (green), and 0.6x (aqua) reagent to sample ratios as shown. Traces show relative differences in peak height and recovery efficiency. Note the most common ratio used for NGS library clean up is 1.8x.

AMPure XP Manual Workflow



- 1 Bind DNA to magnetic beads
- 2 Separate beads from contaminants
- 3 Wash magnetic beads with 70% ethanol to remove contaminants
- 4 Elute DNA from magnetic beads
- 5 Transfer to new plate

For use in manual or automated methods based on batch size or overall throughput

AMPure XP is a flexible reagent suitable for manual or automated workflows.

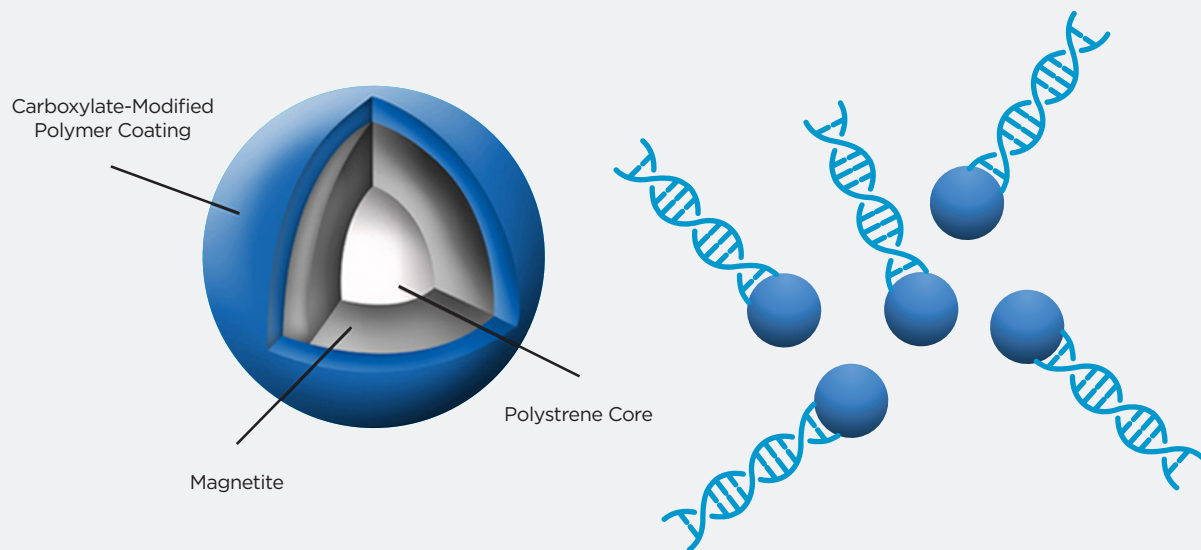
- Scalable based on throughput
- Quick transition with ready-to-implement methods
- Knowledgeable support for reagents, automation and methods all from a single vendor



Batch Size		Manual		Automation	
		Hands-on Time	Total Time	Hands-on Time	Total Time
48	Hands-on Time	25	5		
	Total Time	25	22		
96	Hands-on Time	30	5		
	Total Time	30	22		
4 X 96	Hands-on Time	NR	10		
	Total Time	NR	46		

Table 1. Estimated hands-on time and total time, in minutes, required to perform 48, 96, and 4 x 96 AMPure XP clean-ups. AMPure XP can be performed either manually or automated on a liquid handling system. Difference in time between manual and automation is indicated.

NR = Not Recommended



Advancing science is in our DNA

From the Human Genome Project to today's quest for precision medicine, we've long been invested in providing genomic products that reduce complexity and improve productivity.

Our reagent portfolio is powered by patented Solid Phase Reversible Immobilization (SPRI) technology, widely known for use in our AMPure XP, which uses paramagnetic beads to selectively bind nucleic acids by type and size. SPRI enables our chemistries to deliver high-performance isolation, purification and clean-up protocols supporting applications such as qPCR, ddPCR, Sanger sequencing, next-generation sequencing (NGS) and microarrays.

Our chemistries can be used interchangeably between manual or automated methods combining optimum performance with unsurpassed flexibility.

AMPure XP is available in three kit sizes based on your throughput needs. Contact your local sales representative or visit beckman.com to request a quote.

Part No	Name	Volume
A63880	AMPure XP, 5 mL	5 mL
A63881	AMPure XP, 60 mL	60 mL
A63882	AMPure XP, 450 mL	450 mL

For more information, please contact:



Not intended or validated for use in the diagnosis of disease or other conditions.

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