

AMPure XP and SPRIselect Reagents

The Gold Standard in Bead-Based, NGS Cleanup and Size Selection

Maximizes recovery, consistency and speed

Nucleic acid purification and cleanup are crucial for genomic applications, such as sequencing, qPCR/ddPCR/PCR, and microarrays. Maximizing recovery, consistency, and speed, the AMPure XP reagent meets the stringent needs of today's genomic applications and minimizes the risk of losing important genetic information.

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

Studies by Mikheikin, A., et al. suggest that AMPure XP would be the best choice for DNA analyses requiring higher analytical stringency in comparison to other purification kits.

High-speed atomic force microscopy revealing contamination in DNA purification systems. Anal. Chem. 88:5, 2527-2523 (2016) doi: 10.1021/acs.analchem.5b04023

SPRIselect Reagent vs AMPure XP Reagent Feature Comparison

SPRIselect	AMPure XP
Stable at Room Temperature	Stable at 4°C
QC'd for size selection	QC'd for recovery
Suggested for use in library construction kits	Suggested for use in library construction kits



AMPure XP and SPRIselect Reagents are suggested in over 200 library preparation kits from trusted sequencing companies, including:

- IDT
- Oxford Nanopore Technologies
- Pacific Biosciences
- ThermoFisher Scientific
- Illumina

Research reported in over **15,000 publications** used the AMPure XP reagent

- Referenced in articles in Science, Nature, and PNAS

SPRIselect reagent and AMPure XP reagent

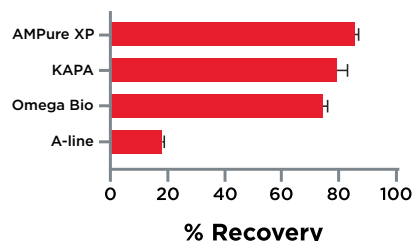
- AMPure XP and SPRIselect reagents can be used interchangeably for PCR cleanup, while the SPRIselect reagent is optimized for reproducible size selection
- Use the same sample-to-bead ratios
- Are suggested for use by the most well-known library construction kit manufacturers, including Illumina, Integrated DNA Technologies, Inc (IDT) and 10X Genomics
- Have identical workflows

SPRIselect reagent benefits

- **Stability at room temperature:**
 - Enables the start of cleanup steps without calibrating to room temperature
 - Frees up 4°C storage space
- **Quality control for size selection provides:**
 - Assurance that every lot will give you accurate size selection
 - Accurate and consistent size selection from lot to lot

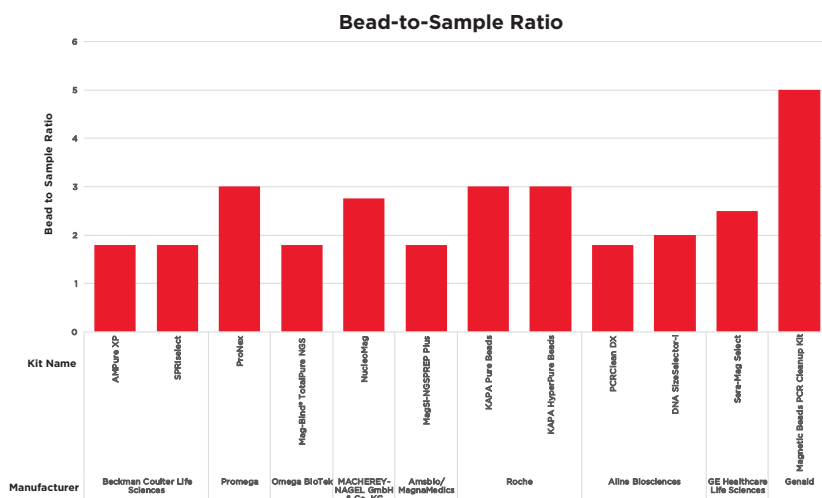
Yields and recovery are crucial in NGS

Cleanup kits are a pivotal part of the next-generation sequencing (NGS) process. They have an immediate impact on efficiency and on quality, as well as key impacts downstream. For optimal quality and efficiency, the percent yield should be between 80% to 95%. Not all cleanup kits can achieve consistently high yield.



Bead-to-Sample ratio for size selection matters

The bead-to-sample ratio is crucial for size selection, and not all bead-based cleanup kits use the same ratio. For example, out of 10 bead-based cleanup kits, only 3 recommend a 1.8x ratio for cleanup. The 1.8x ratio is often mentioned because it is a standard used by AMPure XP reagent for its cleanup usage. This is important while considering the impact on size selection and cost of reagent per cleanup step. Switching to a kit with a different bead-to-sample ratio will require lab protocols to be rewritten and optimized.



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