

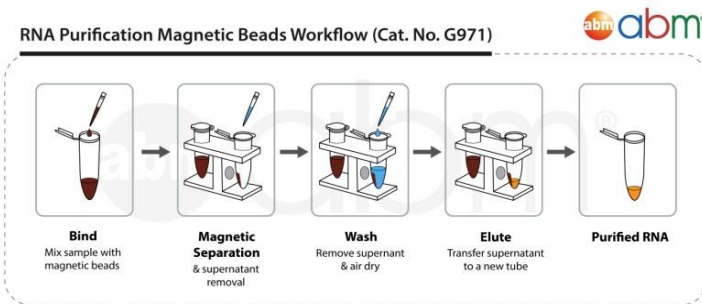
DNA & RNA Purification Magnetic Beads



Magnetic Beads: Fast, Efficient, Scalable Nucleic Acid Purification

Paramagnetic particles with carboxyl coatings enable solid-phase reversible immobilization of DNA and RNA. In the presence of an appropriate buffer and crowding reagent, they efficiently bind nucleic acids for rapid magnetic separation, washing, and recovery. Their reliability, scalability, and automation-readiness make them ideal for PCR and enzymatic cleanup, size selection, and NGS library preparation. These advantages make them superior to silica spin columns, offering greater flexibility, precise fragment-size control, and seamless integration into automated workflows.

Feature	Traditional Silica Spin Columns	DNA/RNA Purification Magnetic Beads
Safety	Less safe – Buffer contains corrosive chemical	Safe – No corrosive chemicals
Sample Input Flexibility & Scalability	Low – Limited by column binding capacity, volume and viscous sample types	High
Automation Compatibility	Low-Moderate	High
NGS Compatibility	Low	High
Workflow Speed	Slower	Fast
Recovery Efficiency	Moderate – Tend to lose small fragments	High
Equipment Required	Centrifuge or manifold, columns, collection tubes	Magnet rack
Cost	Higher reoccurring consumable costs	Lower



Advantages of abm's DNA/RNA Magnetic Beads

- **Fast & Simple Workflow:** Minimal reagents and equipment results in faster processing times and reduced reoccurring costs.
- **High Recovery Rates:** Magnetic beads have an average recovery rate of $\geq 80\%$ regardless of sample input amount or size.
- **Size Selection Capable:** ideal for the reproducible generation of NGS libraries with uniform insert sizes and predictable sequencing performance.

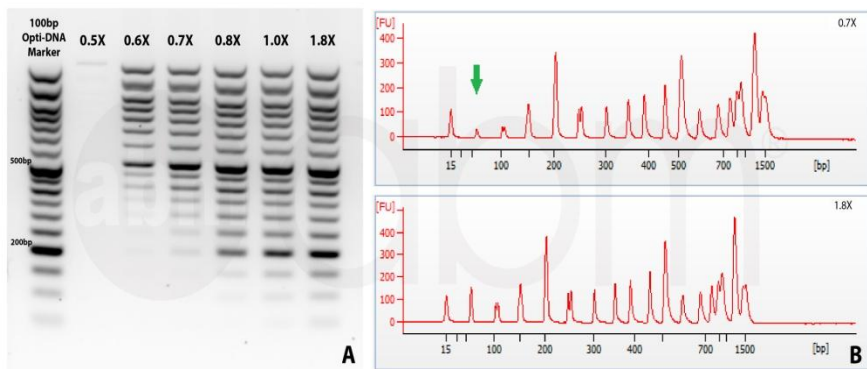


Figure 1. **abm's DNA Purification Magnetic Beads** (Cat. No. G950/G951) enable precise size selection of nucleic acid fragments by adjusting the bead-to-DNA ratio (A). Using a 0.7X ratio selectively retains larger DNA fragments while effectively removing primers, adaptors, and other small fragments under 100bp (B).

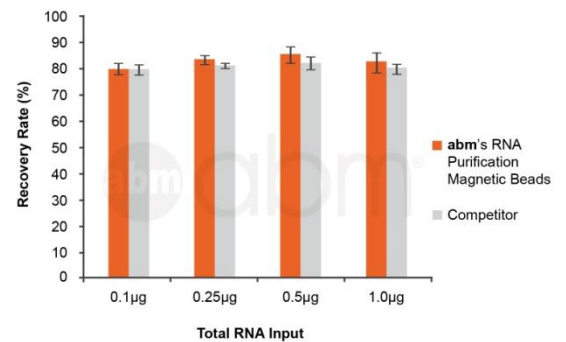


Figure 1. Total RNA recovery rates of varying input amounts following sample purification using **abm's RNA Purification Magnetic Beads** (Cat. No. G971) compared to an equivalent Competitor product.

	Product	Cat.No.	Quantity
RNA	RNA Purification Magnetic Beads	G971	5 ml
DNA	DNA Purification Magnetic Beads	G950	5 ml
		G951	25 ml