



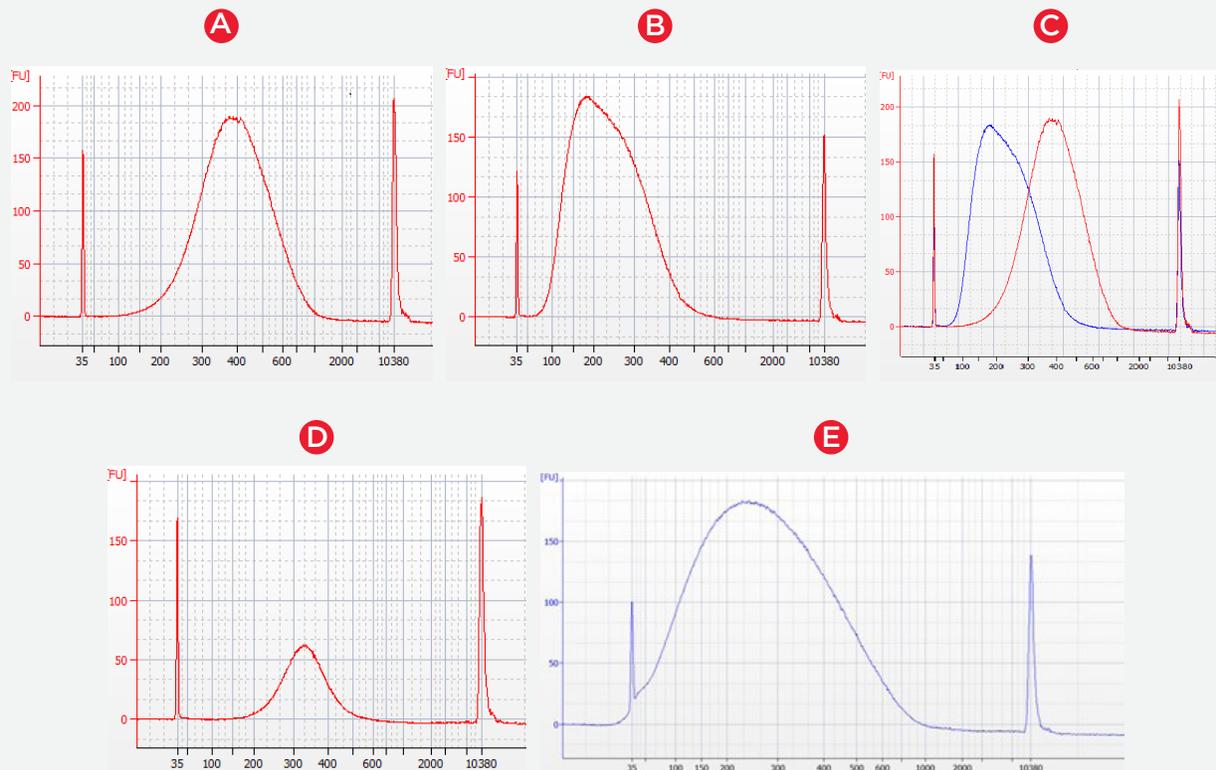
# Manual or Automated DNA Size Selection

## SPRIselect

Next Generation Sequencing (NGS) is the most pervasive technology in genomics research today. The long list of front-end applications has varied library preparation requirements that demand flexible solutions. The size of DNA has a direct impact on generating desired sequencing results. The SPRIselect Reagent Kit is designed to give scientists more flexibility and control over the size selection process. With proven, industry leading Solid Phase Reversible Immobilization (SPRI) technology, this reagent provides robust, reproducible and customizable size selection.

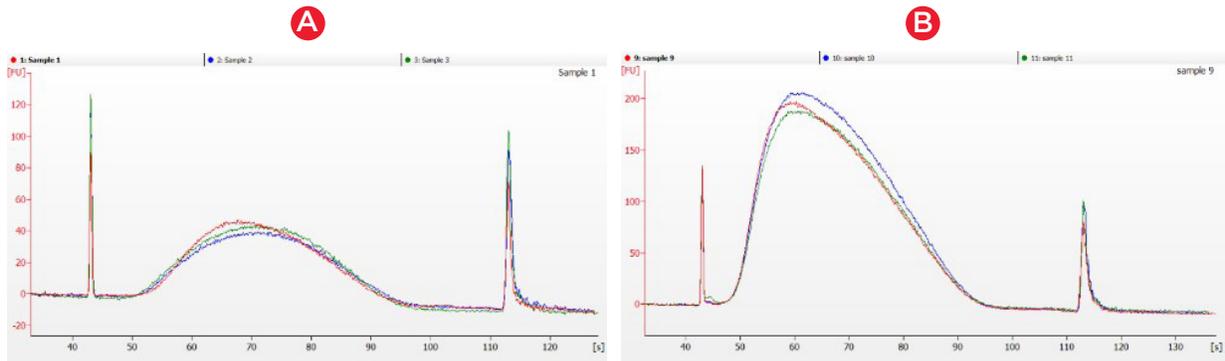
- Tunable from 150 to 800 base pairs to offer easy adjustments for specific applications and sequencers
- Efficient magnetic bead technology eliminates the need for gels, chips or special instrumentation
- Scalable from manual to automated for high throughput processing in 96-well plates

### Dual size selection capability



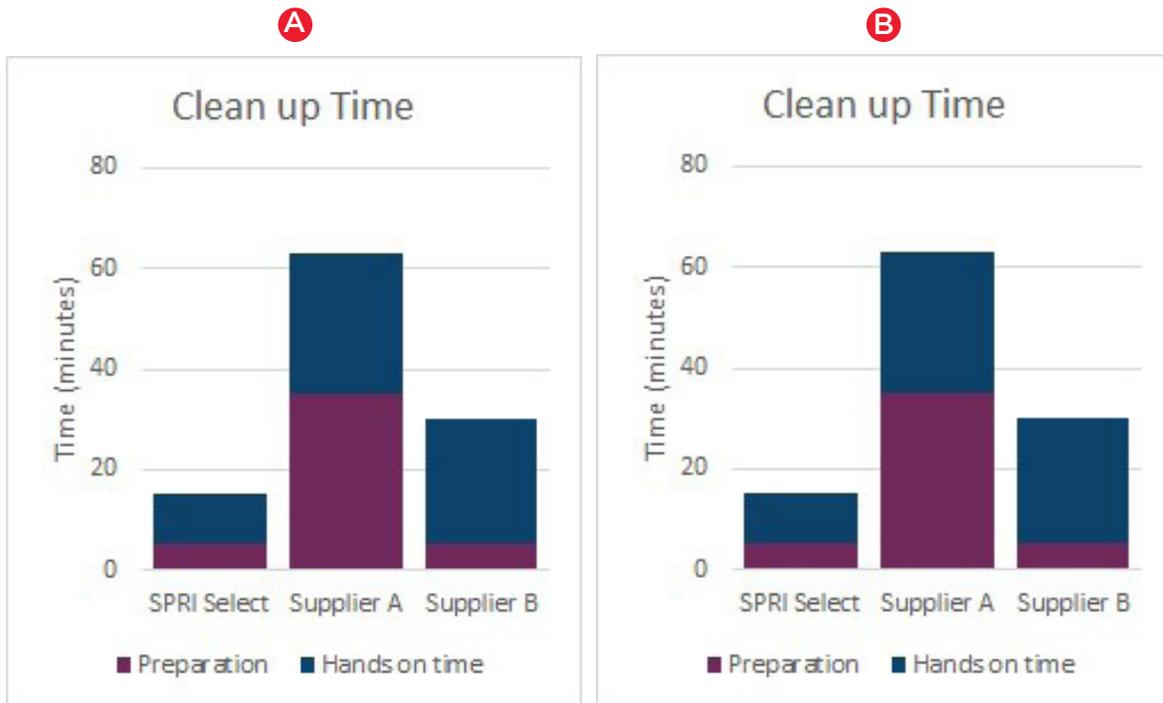
**Figure 1.** SPRIselect was used for dual size selection on sheared gDNA from *E. coli* A. Left size selection B. Right size selection C. An overlay of the left size selection (red) and right size selection (blue). D. Double size selection excludes fragments above and below target cutoffs and captures a targeted region. E. Sheared gDNA from *E. coli*

**Reproducible and tunable: The SPRISelect is manufactured to tight specifications ensuring run to run and lot to lot reproducibility.**



**Figure 2.** Two different size selections were performed on sheared gDNA from E. coli using SPRISelect. Triplicates were performed per size selection. Each of the triplicates show very consistent size selection capabilities. (Top) Bind to sample ratio of 0.5x for left side size selection (Bottom) Bind to sample ratio of 0.5x for right side size selection.

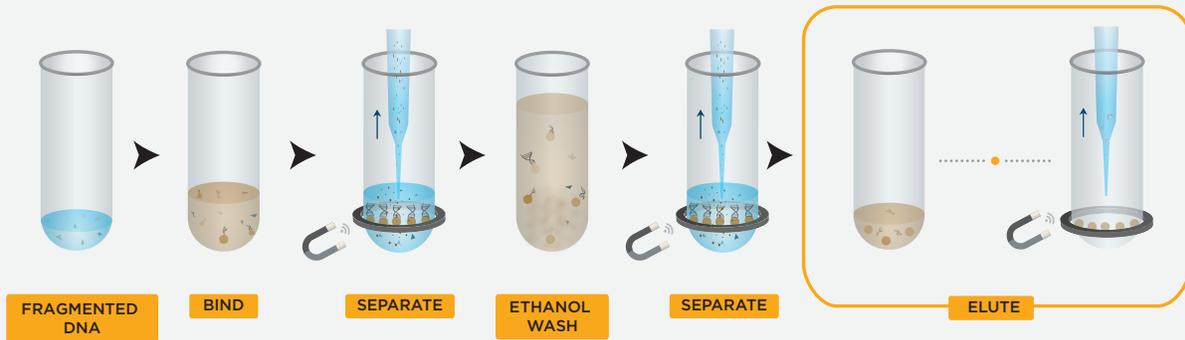
**Less hands on time than other suppliers**



**Figure 3.** SPRISelect and two other commercially available kits were used for size selection on sheared gDNA from E. coli. (Left) The graph represents the time for single size selection or clean up. The SPRISelect workflow for a single size selection is 4.2 and 2 times faster than supplier A and supplier B, respectively. (Right) The graph represents the time for dual size selection. The SPRISelect workflow for dual size selection is 3.8 and 2 times faster than supplier A and supplier B, respectively. SPRISelect has the lowest processing time out of all three suppliers by at least 50%. The times were based on performing size selection for 8 samples manually.

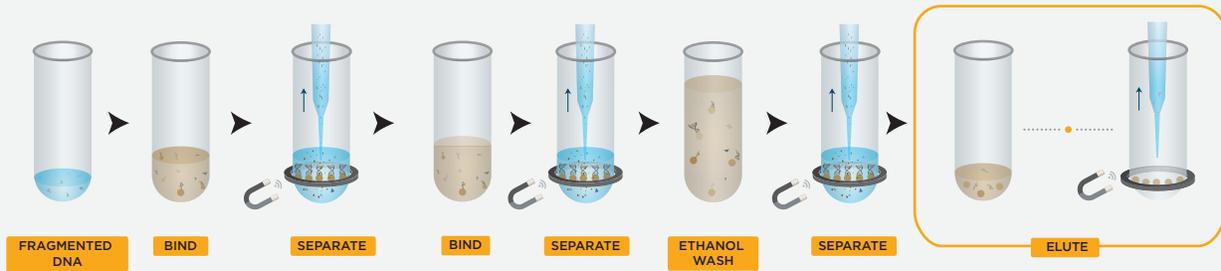
## SPRI Select can be used for single or dual size selections

### Left Size Selection



- 1 Bind DNA to magnetic beads
- 2 Separate beads from contaminants
- 3 Wash magnetic beads with 85% ethanol to remove contaminants
- 4 Elute DNA from magnetic beads
- 5 Transfer to new plate

### Right Size Selection or Dual Size Selection



- 1 Bind DNA to magnetic beads
- 2 Transfer supernatant to a new plate
- 3 Bind DNA to magnetic beads
- 4 Separate beads from contaminants
- 5 Wash magnetic beads with 85% ethanol to remove contaminants
- 6 Elute DNA from magnetic beads
- 7 Transfer to new plate

The process is simple to run manually or automated.

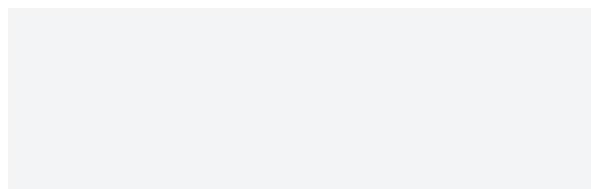
|            |    |               | SPRISelect |           |
|------------|----|---------------|------------|-----------|
|            |    |               | Manual     | Automated |
| Batch Size | 8  | Hands-on Time | 10         | 10        |
|            |    | Total Time    | 20         | 40        |
|            | 24 | Hands-on Time | 15         | 10        |
|            |    | Total Time    | 25         | 42        |
|            | 48 | Hands-on Time | NR         | 15        |
|            |    | Total Time    | NR         | 51        |
|            | 96 | Hands-on Time | NR         | 15        |
|            |    | Total Time    | NR         | 60        |

**Table 1.** Estimated hands-on time and total time in minutes, required to perform dual size selection on 8, 24, 48 and 96 DNA samples using SPRISelect. The different methods can be performed either manually or automated on a Biomek workstation. The table represents automation times performed on a Biomek i7 Hybrid. Difference in time between manual and automation is indicated. NR=Not Recommended.

SPRIselect Reagent is available in three kit sizes based on your throughput needs. Contact your local sales representative or visit [beckman.com](http://beckman.com) to request a quote.

| Part No | Name               | Volume |
|---------|--------------------|--------|
| B23317  | SPRISelect Reagent | 5 mL   |
| B23318  | SPRISelect Reagent | 60 mL  |
| B23319  | SPRISelect Reagent | 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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