

## CentriSep™ Columns Data sheet:

Cat #	Product
S5300.0020	CentriSep Accessory Kit
S5300.0032	CentriSep Dye Terminator Removal Kit <b>pack of 32 columns</b>
S5300.0100	CentriSep Dye Terminator Removal Kit <b>pack of 100 columns</b>
S5301.1020	CentriSpin™-10 columns ( <b>pack of 20</b> ) for DNA, RNA and protein purification
S5301.2020	CentriSpin™-20 columns ( <b>pack of 20</b> ) for DNA, RNA and protein purification
S5301.4020	CentriSpin™-40 columns ( <b>pack of 20</b> ) for DNA, RNA and protein purification

### The CentriSep columns are specially designed for the following applications:

- Purification of fluorescent reaction mixtures, as in DNA sequencing with the ABI 373A and 377A
- Removal of free and labelled dNTP's from DNA/RNA as in:
  - nick translation
  - end-labeling reactions
  - polymerisation reactions
- Desalting, removal of traces of phenol or exchange of buffer salts, as in multiple restriction digestions
- Purification/desalting of proteins (These columns are far superior – in ease of use, speed, and non-toxicity – to such common techniques as phenol/chloroform extractions and ethanol precipitations).

### Benefits of the CentriSep columns:

- Rapid and efficient separations
- Buffer not pre-selected
- Columns stable at room temperature
- Convenient 20 – 100 µl sample size

### Centrifugation Notes:

Maximum yield and efficiency are obtained with the horizontal or swinging-bucket rotors. However, fixed-angle-rotor microcentrifuges provide acceptable performance and save time.

On a variable speed microcentrifuge, DO NOT use the pulse button, which overrides the speed setting and takes the rotor to maximum g-force. If you are not sure of the g-force generated by your centrifuge at specific speeds, calculate the correct speed by using the following formula:

$$\text{rpm} = \sqrt{\text{RCF} / (1.119 \times 10^{-5})} \text{ r(cm)}$$

Where: rpm = revolutions per minute  
RCF = Relative Centrifugal Force  
r = radius (cm) measured from centre of spindle to bottom of rotor bucket.

**Example:** RCF = 750 and r = 7.5 cm

$$\text{rpm} = \sqrt{750 / (1.119 \times 10^{-5})} (7.5) = 2990$$

**Quality Control:** Every batch of CentriSep columns is tested for separation efficiency and fill accuracy.

### Material provided:

- CentriSep columns containing dry gel
- Wash tubes (2 ml)
- Sample Collection tubes (1.5 ml)

### Additional Materials Recommended

- Microcentrifuge (variable speed)
- Variable pipets
- Vortex mixer

### Common Problems

1. Failure to remove excess interstitial fluid after hydration of the columns.
2. Touching the side of the column during sample application.

Both errors can result in ineffective separation.

### Solutions

1. Note if any columns have released less fluid than the others during the first spin. Simply spinning them again briefly will usually remove the excess fluid.
2. Load the sample directly into the centre of the gel bed and do not touch the sample to the walls of the columns

### Reference:

Sambrook, J., Fritsch, E.F., and Maniatis, T., Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory, 1989.