

Product Specifications



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MINI SELECT-D TE, G-50

Microcentrifuge Spin Columns for the Purification of Radiolabeled DNA & RNA

Product Number

IB06005

Size

50/Pack

PHYSICAL SPECIFICATIONS

Package Quantity	50
Maximum Sample Volume	20 μ l
Centrifuge Type Required	Tabletop
Recoveries - DNA (>72bp)	> 90%
RNA (>72bases)	> 80%
Retention - Unincorporated NTPs	> 95%

INTERNAL SPECIFICATIONS

Each DNase and RNase free column is prepackaged with Sephadex G-50 in sterile TE buffer (10mM Tris HCl, 1mM EDTA, pH 8.0). Two nuclease-free collection tubes (autoclavable) are supplied for each column. Proper precautions should be taken to avoid contamination of the column, column contents, collection tubes, and samples with exogenous RNase. The supplied columns and collection tubes are sterile and nuclease-free.

The optimal sample loading volume is 20 μ l with a maximum of 20 μ g of nucleic acid per column. The samples should not be viscous prior to loading.

For best results, use a microcentrifuge with a fixed angle or horizontal rotor capable of 12,000 - 16,000 x g. Please note that the microcentrifuge must be suitable for use with 2ml microcentrifuge tubes. In particular, the 2ml tubes positioned in the rotor must not contact any part of the microcentrifuge interior. Use of a closed-bottom rotor compatible of accepting 2ml tubes is recommended.

RECOMMENDED USE

The MINI SELECT-D TE, G-50 microcentrifuge spin columns are intended for use in desalting, recovering DNA fragment (>72bp, smaller DNAs will be retained), and removing unincorporated radiolabeled deoxynucleoside triphosphates (dNTPs) from small volume 5' end-labeling reactions and fill-in labeling reactions utilizing a DNA polymerase. In addition, the MINI SELECT-D TE, G-50 spin columns are RNase-free and can be used for the rapid purification of RNA (>72bases) away from unincorporated ribonucleotides (rNTPs) and in other related applications. After brief centrifugation, the purified nucleic acid is recovered from the column without significant change in volume.

QUALITY ASSURANCE

Each lot of MINI SELECT-D TE, G-50 have been tested for recoveries and retention. IBI Spin Columns have been found to meet or exceed the above specifications. Each lot is also tested for sterility and the absence of detectable DNase and RNase.

FOR RESEARCH AND DEVELOPMENT PURPOSES ONLY

STORAGE

Columns should be stored at +4°C, and are stable for a period of at least 1 year.

Note: DO NOT FREEZE COLUMNS!

REFERENCE

1. Sambrook, J., E.F. Fritsch, and T. Maniatis. 1989. "Molecular Cloning: A Laboratory Manual", 2nd Edition. Cold Spring Harbor Laboratory Press. Cold Spring Harbor, NY p. E.37-E.38.
2. Sephadex®, Pharmacia, Inc. Piscataway, NJ.

PROTOCOL

Note: Please read entire protocol before using spin columns!

1. Invert columns several times to fully re-suspend the gel. Shake the column with a sharp downward motion so that no resin remains in the top of the column.
2. To open the output end of the column, break off the tip closure. See Photo 1.
3. Insert the opened column into one of the collection tubes included in this kit. See Photo 2.
4. Insert the coupled column and collection tube into a fixed angle or horizontal rotor microcentrifuge, suitable for use with 2ml microcentrifuge tubes. Centrifuge at 12,000 - 16,000 x g for 30 seconds. See Photo 3.
5. Once completed, this will have removed any excess buffer in the gel matrix. You may now discard the collection tube containing the buffer.
6. Remove the top cap and lace column into a 2nd collection tube, included in this kit. Carefully pipet a 20 μ l sample directly into the center of the shrunken gel matrix. Place cap back on top of columns. **Caution:** Column caps should be placed back on top of column to prevent any potential contamination during centrifuge procedures.
7. Allow loaded column to sit undisturbed for 2 - 3 minutes then insert the coupled column and collection tube assembly into the microcentrifuge, so that the slanted gel bed is oriented the same way as it was after the pre-spin.
8. Centrifuge the assembly at 12,000 - 16,000 x g for 30 seconds.
9. The labeled nucleic acid will be recovered in the collection tubes in approximately 20 μ l of TE buffer solution.
10. Greater than 90% of the unincorporated NTP(s) may be retained in the column gel. Discard the used column.



Note: This purification column is intended for ONE purification use only!

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