

NUCLEIC ACID PURIFICATION

spin columns for sample preparation

Micro Bio-Spin® and Bio-Spin® Columns for Probe Cleanup and Dye Terminator Removal

EFFICIENT PRIMER, PROBE, AND TEMPLATE CLEANUP:

- **DYEDEOXY® TERMINATOR REMOVAL IN MINUTES, WITH IMPROVED YIELD AND RECOVERY OVER EtOH PRECIPITATIONS**
- **REMOVAL OF EXCESS dNTPs, LABEL AND SMALL MOLECULES FOR CLEANER PROBES AND PRIMERS**
- **SAMPLE LOADS FROM 10–100 µl FOR LABELING AND DESALTING APPLICATIONS**
- **SAFE RIBOPROBE PREPARATION WITH RNase-FREE MICRO BIO-SPIN 30 TRIS SPIN COLUMNS**
- **AVAILABLE WITH P-6 GEL AND TRIS OR SSC BUFFER FOR DESALTING AND BUFFER EXCHANGE APPLICATIONS**
- **AVAILABLE IN TRIS BUFFER FOR MOLECULAR BIOLOGY APPLICATIONS**

The production of radiolabeled DNA and RNA is a common molecular biology application in applications including end labeling reactions, nick translation, purification of fluorescent sequencing reaction mixtures, and exchange of buffer salts in multiple restriction digests. The unincorporated radioactive nucleotides are typically removed from the reaction mixture by gel filtration chromatography, phenol extraction or alcohol precipitation. These tedious and time-consuming steps can be eliminated with Micro Bio-Spin and Bio-Spin chromatography columns. The spin column technique combines the ease and speed of centrifugation with the efficiency of gel filtration for separating molecules by size, with desired sample molecules purified in the collection tube.

These products are ideal for quick and effective cleanup and removal of salts, nucleotides, dye terminators, and small molecules from DNA, RNA, and protein samples.

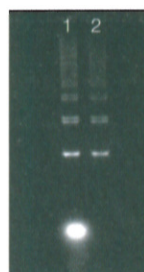
- Prepacked with a specially-sized Bio-Gel® polyacrylamide size-exclusion gel to match your specific application
- Prehydrated with 10 mM Tris or SSC buffer so you can start immediately
- Easy procedure: drain buffer, apply sample, and spin. Purified sample elutes in the centrifuge tube, leaving contaminants behind in the column

APPLICATION

DyeDeoxy terminator removal in cycle sequencing reactions
Labeling reactions: removal of unincorporated labeled nucleotides from labeled DNA >20 bases or bp
Desalting of newly synthesized oligonucleotides >20 bases
Buffer exchange of restriction fragments, PCR products, enzymatic reactions and sequencing templates
Riboprobe cleanup
Desalting of antibody, enzyme and protein solutions
Purify proteins >6,000 molecular weight
Purify proteins >40,000 molecular weight



- Fast and efficient: from start to finish in less than 10 min
- An effective way to eliminate phenol extractions, gravity columns, binding and wash buffer steps, and loss from ethanol precipitations



Removal of unincorporated label with a Micro Bio-Spin 30 column.

Lane 1, TBE-agarose gel analysis of a 100 bp molecular ruler end-labeled with a fluorescein dCTP DNA labeling kit prior to removal of unincorporated labeled dCTP; lane 2, aliquot of labeled 100 bp molecular ruler after purification with a Micro Bio-Spin 30 column.

RECOMMENDED COLUMN

Bio-Spin/Micro Bio-Spin 30, Tris
Bio-Spin/Micro Bio-Spin 30, Tris

Bio-Spin/Micro Bio-Spin 6, Tris
Bio-Spin/Micro Bio-Spin 6 or 30, Tris

Micro Bio-Spin 30 Tris, RNase free
Bio-Spin/Micro Bio-Spin 6 or 30
Bio-Spin/Micro Bio-Spin 6
Bio-Spin 30

BIO-RAD

Micro Bio-Spin Columns

Micro Bio-Spin 30 chromatography columns are the ideal means for removing unincorporated dye terminators from automated sequencing reactions quickly and inexpensively. Prepacked Micro Bio-Spin columns are:

- Available in RNase-free form for riboprobe purification
- Suitable for use in a microcentrifuge
- Available in two buffer formulations for molecular biology or buffer exchange applications
- Ideal for removal of ddNTPs and unincorporated label from reaction mixtures (Tris buffer)

Bio-Spin Columns

Bio-Spin 6 and 30 columns are prepacked, ready-to-use chromatography columns. With a choice of two buffer formulations, they can be used for molecular biology applications or for rapid and efficient desalting of biomolecules. Within minutes, Bio-Spin columns will:

- Clean up and purify probe, nick translation, plasmid, and PCR reaction mixtures
- Desalt and clean up labeled and unlabeled protein and peptide preparations
- Remove unbound dye in dye binding assays
- Accommodate small sample volumes with no dilution
- Remove ddNTPs and unincorporated label from reaction mixtures (Tris buffer)

Technical Information

	Bio-Spin 6	Micro Bio-Spin 6	Bio-Spin 30	Micro Bio-Spin 30
Packed support	Special grade Bio-Gel® P-6 gel	Special grade Bio-Gel P-6 gel	Special grade Bio-Gel P-30 gel	Special grade Bio-Gel P-30 gel
Equilibration buffers	10 mM Tris, pH 7.4 or SSC buffer*	10 mM Tris, pH 7.4 or SSC buffer*	10 mM Tris, pH 7.4 or SSC buffer*	10 mM Tris, pH 7.4 or SSC buffer*
Application	Desalting and buffer exchange	Desalting and buffer exchange	DNA sequencing reaction mixtures (Tris) and small molecule removal	DNA sequencing reaction mixtures (Tris) and small molecule removal
Bed volume	1.1 ml	0.7 ml	1.1 ml	0.7 ml
Retention and recovery	90% recovery of 20 bases or bp, 99% retention of salts	90% recovery of 20 bases or bp, 99% retention of salts	95% recovery of 22 bases or bp, 98% retention of dNTPs	95% recovery of 22 bases or bp, 98% retention of dNTPs
Exclusion limit, globular proteins	6,000	6,000	40,000	40,000
Sample volume	20–100 µl	10–75 µl	20–100 µl	10–75 µl
Centrifuge type	Swinging bucket	Microcentrifuge	Swinging bucket	Microcentrifuge
Autoclavable	Yes	Yes	Yes	Yes

Ordering Information

Catalog #	Description		
732-6223	Micro Bio-Spin 30 Columns, Tris, 25	732-6202	Micro Bio-Spin 30 Columns, SSC, 25
732-6224	Micro Bio-Spin 30 Columns, Tris, 100	732-6203	Micro Bio-Spin 30 Columns, SSC, 100
732-6250	Micro Bio-Spin 30 Columns, Tris, RNase free, 25	732-6200	Micro Bio-Spin 6 Columns, SSC, 25
732-6251	Micro Bio-Spin 30 Columns, Tris, RNase free, 100	732-6201	Micro Bio-Spin 6 Columns, SSC, 100
732-6221	Micro Bio-Spin 6 Columns, Tris, 25	732-6006	Bio-Spin 30 Columns, SSC, 25
732-6222	Micro Bio-Spin 6 Columns, Tris, 100	732-6002	Bio-Spin 6 Columns, SSC, 25
732-6231	Bio-Spin 30 Columns, Tris, 25		
732-6232	Bio-Spin 30 Columns, Tris, 100		
732-6227	Bio-Spin 6 Columns, Tris, 25		
732-6228	Bio-Spin 6 Columns, Tris, 100		

* 150 mM NaCl, 17.5 mM sodium citrate, pH 7.0.

DyeDeoxy is a trademark of The Perkin-Elmer Corp.

BIO-RAD

**Bio-Rad
Laboratories**

Life Science
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