nucleic acid purification
SPIN COLUMNS FOR SAMPLE PREPARATION

BENEFITS CRITICAL TO EFFICIENT PRIMER, PROBE, AND TEMPLATE CLEAN-UP:

- **EFFECTIVE DYEDEOXY® TERMINATOR REMOVAL IN MINUTES, WITH IMPROVED YIELD AND RECOVERY OVER EtOH PRECIPITATIONS**
- **EFFICIENT REMOVAL OF EXCESS dNTPs, LABEL, AND SMALL MOLECULES FOR CLEANER PROBES AND PRIMERS**
- **ACCOMMODATES SAMPLE LOADS FROM 10–75 µl FOR LABELING AND DESALTING APPLICATIONS**
- **SAFE RIBOPROBE PREPARATION WITH NEW RNase-FREE MICRO BIO-SPIN P-30 TRIS SPIN COLUMN**

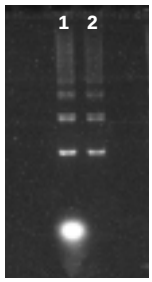
Micro Bio-Spin and Bio-Spin Columns for Probe Clean-Up and Dye Terminator Removal

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 centifugation with the efficiency of gel filtration in separating molecules by size, with desired sample molecules purified in the collection tube.

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

- Prepacked with 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

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



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

APPLICATION	RECOMMENDED COLUMN
DyeDeoxy terminator removal in cycle sequencing reactions	Micro Bio-Spin P-30
Labeling reactions: removal of unincorporated labeled nucleotides from labeled DNA >20 bases/bp	Bio-Spin/Micro Bio-Spin P-30
Desalting of newly synthesized oligonucleotides >20 bases	Bio-Spin/Micro Bio-Spin P-6
Buffer exchange restriction fragments, PCR products, enzymatic reactions, and sequencing templates	Bio-Spin/Micro Bio-Spin P-6 or P-30
Riboprobe cleanup	Micro Bio-Spin P-30 Tris, RNase-free
Desalting of antibody, enzyme, and protein solutions	Bio-Spin/Micro Bio-Spin P-6 and P-30
Purify proteins >6,000 daltons	Bio-Spin/Micro Bio-Spin P-6
Purify proteins >40,000 daltons	Bio-Spin P-30

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Micro Bio-Spin Columns

Micro Bio-Spin P-30 spin 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 Tris buffer for molecular biology applications
- Suitable for use in a microcentrifuge
- Available with P-6 gel and Tris and SSC buffer for desalting and buffer exchange applications
- Now available in RNase-free form for riboprobe purification

Bio-Spin Columns

Bio-Spin 6 and 30 spin columns are prepacked, ready-to-use spin chromatography columns for rapid and efficient desalting of biomolecules. Within minutes, the 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

Technical Information

	BIO-SPIN P-6	MICRO BIO-SPIN P-6	BIO-SPIN P-30	MICRO BIO-SPIN P-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	SSC buffer*	10 mM Tris, pH 7.4 and SSC buffer*	SSC buffer*	10 mM Tris, pH 7.4 and SSC buffer*
Application	Desalting and buffer exchange	Desalting and buffer exchange	Desalting, and nucleotide 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/bp, 99% retention of salts	90% recovery of 20 bases/bp, 99% retention of salts	95% recovery of 22 bases/bp, 98% retention of dNTPs	95% recovery of 22 bases/bp, 98% retention of dNTPs
Exclusion limit, globular proteins	6,000 daltons	6,000 daltons	40,000 daltons	40,000 daltons
Sample volume	50–100 µl	10–75 µl	50–100 µl	10–75 µl
Centrifuge type	Swinging bucket	Microcentrifuge	Swinging bucket	Microcentrifuge
Autoclavable	Yes	Yes	Yes	Yes

Ordering Information

Catalog #	*Description*
732-6002	Bio-Spin Columns with Bio-Gel P-6, in SSC* buffer, 25 columns
732-6006	Bio-Spin Columns with Bio-Gel P-30, in SSC buffer, 25 columns
732-6221	Micro Bio-Spin Columns with Bio-Gel P-6 in Tris buffer, 25 columns
732-6222	Micro Bio-Spin Columns with Bio-Gel P-6 in Tris buffer, 100 columns
732-6223	Micro Bio-Spin Columns with Bio-Gel P-30 in Tris buffer, 25 columns
732-6224	Micro Bio-Spin Columns with Bio-Gel P-30 in Tris buffer, 100 columns
732-6250	Micro Bio-Spin Columns with Bio-Gel P-30 in Tris buffer, RNase-free, 25 columns
732-6251	Micro Bio-Spin Columns with Bio-Gel P-30 in Tris buffer, RNase-free, 100 columns
732-6200	Micro Bio-Spin Columns with Bio-Gel P-6 in SSC buffer, 25 columns
732-6201	Micro Bio-Spin Columns with Bio-Gel P-6 in SSC buffer, 100 columns
732-6202	Micro Bio-Spin Columns with Bio-Gel P-30 in SSC buffer, 25 columns
732-6203	Micro Bio-Spin Columns with Bio-Gel P-30 in SSC buffer, 100 columns

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

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The Netherlands *31 318-540666* ***New Zealand*** *64-9-4152280* ***Singapore*** *65-2729877* ***Spain*** *(91) 661 70 85* ***Sweden*** *46 (0)8 627 50 00*
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