

## ZR-96 DNA Sequencing Clean-up Kit™

For the removal of post-cycle sequencing reaction contaminants (*i.e.*, unincorporated fluorescent dyes, residual salts, dNTPs, primers, and enzymes) from DNA extension products.

### Highlights

- Simple 10 Minute Bind, Wash, Elute Procedure
- Flexible 15-20 µl Elution Volumes Allow for Direct Loading of Samples with no Precipitation or Drying Steps
- Complete Elimination of “Dye Blobs” with High Quality Phred Scores and Long Read Lengths
- Reusable 96-Well Filtration Plates that Support Both Gel and Capillary Electrophoresis Platforms

Catalog Numbers:  
D4052, D4053



Scan with your smart-phone camera to  
view the online protocol/video.



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# Product Contents

ZR-96 DNA Sequencing Clean-up Kit™	D4052 (2 x 96 Preps.)	D4053 (4 x 96 Preps.)	Storage
Sequencing Binding Buffer	55 ml	2 x 55 ml	Room Temp.
Sequencing Wash Buffer	70 ml	2 x 70 ml	Room Temp.
Zymo-Spin™ IB-96 Plates	2	4	Room Temp.
Collection Plates	2	4	Room Temp.
96-Well PCR Plate	2	4	Room Temp.
Instruction Manual	1	1	-

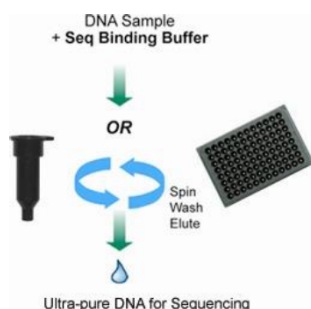
# Specifications

- **Format** – Filtration plate.
- **Sample Sources** – Dye terminator sequencing reactions: Big Dye Terminator and other fluorescent based sequencing reactions.
- **DNA Purity** – High quality, sequencing-ready DNA products that are free of unincorporated dye terminators, dNTPs, enzymes, and residual salts.
- **Equipment** – Centrifuge w/ microplate carriers.

# Product Description

The **ZR-96 DNA Sequencing Clean-up Kit™** provides a simple method for the rapid removal of post-cycle sequencing reaction contaminants (*i.e.*, unincorporated fluorescent dyes, residual salts, dNTPs, primers, and enzymes) from DNA extension products. These contaminants can often interfere with the quality and signal strength of sequencing data. In particular, unincorporated dyes can result in dye peaks (“dye blobs”) which may obscure portions of the sequencing chromatogram and interfere with base-calling accuracy of sequencing analysis software.

The **ZR-96 DNA Sequencing Clean-up Kit™** employs a single-buffer system that allows for efficient DNA adsorption onto the matrix of the supplied **Zymo-Spin™ IB-96 Plate**. The DNA is washed then eluted with a small volume of water or loading dye containing formamide. The entire DNA purification procedure typically takes about 10 minutes.



Sequencing chromatogram of pGEM® DNA generated using an ABI 3730xl DNA analyzer. DNA was labeled with ABI BigDye Terminator v3.1 and cleaned using the **ZR DNA Sequencing Clean-up Kit™**.

# Protocol

## Sample Processing

1. Add 240  $\mu$ l of **Sequencing Binding Buffer** to 5-20  $\mu$ l sequencing reaction.

**Note:** Alternatively, 5-20  $\mu$ l sequencing reaction can be mixed with 240  $\mu$ l **Sequencing Binding Buffer** that has already been added to the wells of the **Zymo-Spin™ IB-96 Plate**.

2. Transfer mixture to a provided **Zymo-Spin™ IB-96 Plate** mounted onto a **Collection Plate**.
3. Centrifuge at  $\geq 3,000 \times g$  (5,000  $\times g$  max.) for 2 minutes.
4. Add 300  $\mu$ l **Sequencing Wash Buffer** to each well of the plate. Centrifuge at  $\geq 3,000 \times g$  for 5 minutes.
5. Add 15-20  $\mu$ l water directly to the column matrix of the filter plate. Place the **Zymo-Spin™ IB-96 Plate** on top of the supplied **96-Well PCR Plate** and mount the assembly onto the **Collection Plate**, then centrifuge at  $\geq 3,000 \times g$  for 2 minutes to elute the DNA.

**Note:** A formamide solution ( $\leq 20\%$ ) may also be used to elute the DNA.

Ultra-pure DNA is now ready to be loaded into the sequencer.

## Filter Plate Re-generation Procedure

**Note:** Plates may be regenerated up to 10X pending no damage to the plates or matrices. If plates are regenerated, additional buffers will have to be ordered separately.

1. Add 500  $\mu$ l of 0.1% HCl to each well of the filter plate or submerge the whole plate in 0.1% HCl solution and incubate at room temperature for 30 minutes.
2. Centrifuge at  $\geq 3,000 \times g$  for 5 minutes.
3. Let dry overnight at 37°C.
4. Filter plates are now ready for use.

# Ordering Information

Product Description	Catalog No.	Size
ZR-96 DNA Sequencing Clean-up Kit™	D4052	2 x 96 Preps.
	D4053	4 x 96 Preps.
ZR DNA Sequencing Clean-up Kit™	D4050	50 Preps.
	D4051	200 Preps.

Individual Kit Components	Catalog No.	Amount
Sequencing Binding Buffer	D4050-1-14	14 ml
	D4050-1-55	55 ml
Sequencing Wash Buffer	D4050-2-20	20 ml
	D4050-2-70	70 ml
Zymo-Spin™ IB-96 Plate	C2006	2 Plates
Collection Plate	C2002	2 Plates
96-Well PCR Plate	C2008	2 Plates



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Integrity of kit components is guaranteed for up to one year from date of purchase.  
Reagents are routinely tested on a lot-to-lot basis to ensure they provide the highest performance and reliability.

This product is for research use only and should only be used by trained professionals. It is not for use in diagnostic procedures. Some reagents included with this kit are irritants. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

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