PERFORMA® DTR 384-Well Plates

Product	Catalog #	Purifications
Performa DTR 384-Well Plates (2 Plates)	52571	768
Performa DTR 384-Well Plates (10 Plates)	90636	3840

Description

Performa DTR (**D**ye **T**erminator **R**emoval) 384-Well Plates are gel filtration plates that consists of 100-µl volume columns in a standardized array, packed with a gel matrix to effectively remove dye terminators, dNTPs, salts and other low molecular weight materials from 5-10 µl volume sequencing reactions. The gel matrix is supported on a glass fiber membrane with a nominal pore size of 1 micron. Each column is connected to a 5-mm long drip director.

The columns are pre-packed with a fully hydrated matrix to afford optimal handling and performance characteristics. To minimize the potential for interference with sequencing applications, no preservatives, salts or buffers are used in the preparation of these columns. Both ends of the Performa 384-Well Plate are sealed to prevent drying.

Component	52571	90636
Performa 384-Well Plate	2 plates (2 x PN 4050183)	10 plates (10 x PN 4050183)

Equipment and Materials Required

1. Variable speed centrifuge (benchtop or floor model)
2. Rotor and microplate carriers for above.

Storage Condition

Store at +4°C. Do not freeze.

Quality Control

Tested for sequence quality and sequencing accuracy on a capillary sequencer.

Recommended Protocol for 5 µl–10 µl Sequencing Reaction Volumes

1. **Remove the top and bottom adhesive tapes from a Performa 384-Well Plate.**
   - Note: Remove the bottom adhesive tape first.
   - Ensure that the plate remains horizontal to avoid losing any gel.
2. **Stack the Performa 384-Well Plate on top of a 384-well collection plate. Place the assembly on a cushioned centrifuge carrier.**
   - Note: See "Additional Notes #2" for information on 384-well plates recommended for use in this step.
3. **Centrifuge for 2 minutes at 850 *x g*. Discard eluate.**
   - See "Additional Notes #1" for determination of RPM from RCF or visit our website at www.edgebio.com and click on Technical Support.
4. **Transfer the reaction samples to the center of each well in the Performa 384-Well Plate. The amount of dye terminator mix in the reaction may not exceed 2 µl.**
5. **Stack the Performa 384-Well Plate on top of a 384-well collection plate. Place the assembly on a cushioned centrifuge carrier.**
   - Note: See "Additional Notes #3" for information on 384-well plates recommended for use in this step. The collection plate used in step 2 is not recommended for this step.
6. **Centrifuge procedure:**

   For 5 µl Reaction Volumes: Centrifuge for 5 minutes at 850 *x g*. Retain eluate.

   For 10 µl Reaction Volumes: Centrifuge for 2 minutes at 850 *x g*. Retain eluate.
7. **The eluate contains purified sample ready for loading on sequencers.**
   - Note: Consult the manufacturer's recommendation for sample handling.

Additional Notes

1. **Conversion of RCF to RPM Calculation:**

   An accurate determination of the centrifugation speed is very important. The relative centrifugal force (RCF) specified in the protocol is converted to revolutions per minute (RPM) using the following formula:

   $$RPM = 1000 \sqrt{\frac{RCF}{1.12\,r}}$$

   The radius, r, is equal to the distance in millimeters between the axis of rotation and the bottom of the gel bed when the plate is placed in the plate carrier in the centrifuge bucket.

   To achieve RCF = 850 *x g*:

   $$\boldsymbol{RPM} = 27{,}549 \sqrt{\frac{1}{r}}$$

2. Use only plates with 60 µl volume or greater. As a general rule, this excludes most PCR plates. Recommended plate manufacturers/suppliers include Greiner, Whatman and ABI.

3. The following manufacturers/suppliers are recommended for 384-Well PCR plates for collecting product: Greiner and ABI. **WARNING**: Use of non-recommended plates may result in "locking" of the filterplate and collection plate, and loss of sample.