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# RNASep™ Semi-Prep

## Column Care Information

Catalog Number: RPC-99-2110

The ADS Biotec RNASep™ Semi-Prep Column contains nonporous polystyrene-divinylbenzene (PS-DVB) copolymer beads that are approximately 2µm in size and are alkylated with C-18 chains. The polymer packing is designed for the separation of RNA. The column should be installed and used in accordance with the following instructions.

### GENERAL

Each column is shipped with an attached label identifying column type, serial number and flow direction. Be sure this tag is kept on the column in case further details are needed about this specific column. Before installing the column, the entire system should be flushed with the mobile phase to be used. The mobile phase should be passed through a 0.2µm filter and thoroughly degassed. Maximum pressure on this column should not exceed 4000 psi. The typical detection system uses UV absorbance @ 260nm.

### PHYSICAL CHARACTERISTICS

**Dimensions:** 21.2 x 100 mm

**Packing Material:** Alkylated PS-DVB beads, C18

**Ionic Form:** NA

**pH Range:** 0-14

### MOBILE PHASE

The RNASep Semi-Prep column was designed for optimal separation using ADS Biotec WAVE Optimized® Buffer system.

**TEAA Buffer A** - (PN: 553421) 0.1M Triethylammonium Acetate (TEAA) pH 7.0

**TEAA Buffer B** - (PN: 553422) 0.1M TEAA, 25% Acetonitrile pH 7.0

**Column Wash Solution D** - (PN: 553423) 75% Acetonitrile

### INSTALLATION

-Before installing the column, thoroughly flush the HPLC system with 100 % Solution D (for 20 minutes @ 2.0 mL/min).

Best results will be obtained with the flow direction as indicated by the arrow on the column.

-Securely attach the column and turn on the column oven to 45 °C.

-Set Flow Rate to 5.0 mL/min.

-Equilibrate the column with 38% Buffer B for at least 20 min before loading RNA sample.

### COLUMN STORAGE

Be sure to flush RNASep™ Semi-Prep column with 100% Solution D @ 5.0mL/min for at least 30 minutes before removing column for storage. The column must be stored in Solution D. Prior to storage, seal the column using the column end-plugs before storing at room temperature.



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# RNASeq™ Semi-Prep

## Column Care Information REGENERATION PROCEDURE

Catalog Number: RPC-99-2110

To prolong the life of the RNASeq™ Semi-Prep Column it may be necessary to regenerate using Solution D.

1. Reverse the flow direction of the column.
2. Set oven temperature to 80 °C (or lower than 80 °C as column heater allows).
3. Flush column with 100% Solution D @ 0.5 mL/min for 30 minutes.
4. Set oven temperature to 50 °C.
5. Reverse the flow direction of the column- back to normal direction. NOTE: Column will be HOT.
6. To prepare column for storage, continue with Solution D until column has cooled to 50 °C (or lower) before removing.
7. To prepare column for a new sample, typically equilibrate first with 50% Buffer A, 50% Buffer B @ 0.5 mL/min for at least 30 minutes at the targeted oven temperature.

## COLUMN PRECAUTIONS

No warranty exists for this specialized column. Please note the following precautions in using the RNASeq™ Semi-Prep column:

- Use only HPLC grade acetonitrile, <0.005 AU (UV absorbance) at 260 nm. ADS Biotec Buffers and/or acetonitrile are recommended.
- Use only HPLC grade water that has a resistivity of at least 18 MΩ purity with < 15 ppb T.O.C. (total organic carbon) and must not be autoclaved.
- Do not inject the following materials:
  - Bovine Serum Albumin
  - Autoclaved Water
  - Mineral Oil
  - Formamide
  - Proteinase K
  - High Molecular weight stabilizers such as polyethylene glycol (1% max)
  - Detergents such as Triton X100, NP40, Tween 20 and SDS/SLS (1% max)
  - Glycerol (2% max)
  - DMSO (10% max)
  - Betaine (1.25-2.5M max)