



RIBOSEP™ RNA COLUMNS FOR mRNA ANALYSIS

Finalizing your SOP for RNAi therapeutic manufacturing is a wonderful thing. Unless you have contaminants or non-specific products that aren't visible with your current separation method. And that's exactly why we developed our new RiboSep $^{\text{TM}}$ RNA Columns.

RiboSep™ RNA columns provide the highest resolution separation of RNA molecules, regardless of molecular size, removing guesswork from the equation and allowing you to confidently move forward with RNAi therapeutic manufacturing. Plus, the unique, non-porous resin inside our new RiboSep RNA columns virtually eliminates the risk of carryover contamination from previous samples that can complicate your analysis.

Moreover, our proprietary manufacturing process produces pure polystyrene beads that are surface modified to create unique chemistries that provide the highest resolution separation-enabling identification and quantification of all non-specific products and contaminants in your large *in vitro* transcribed mRNA products.









// FFATURES & RENEFITS //

- / High resolution separation enables identification and quantification of all non-specific products and contaminants in your large in vitro transcribed mRNA products
- / Non-porous, neutral surface bead structure eliminates carryover contamination that is typical with porous resins

Unlike silica-based reverse phase columns, the resin in our RiboSep RNA columns:

- / Was developed solely for nucleic acid separations
- / Has mono-dispersed and pH friendly 2 μm polystyrene divinylbenzene spheres that are coated with a proprietary functionality
- / Supports ion pairing eluent (TEAA/acetonitrile) coupled with the ability to heat, enabling tight control over small and large molecular weight separations
- / Versatile performance over the widest range of RNA oligos, from 15 bases to 100,000 bases on a single RiboSep column

CHROMATOGRAPHY

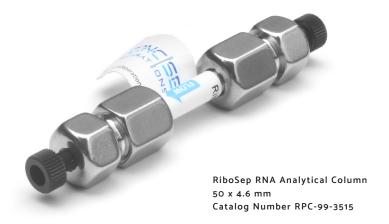
SEPARATIONS

REPRODUCIBILITY

PRECISION

focus

0



RIBORULER 16 14 12 10 8 6 4 2

15

20

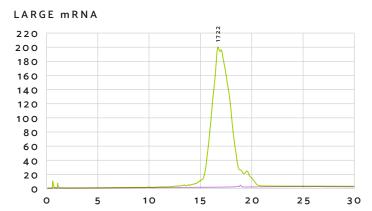
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High Resolution Separation

Separation of RiboRuler High Range RNA Ladder (Thermofisher Scientific). Running Conditions: 0.75 mL/min flow rate at a column temperature of 75 °C. Run time is 30 minutes using a 30 – 60% Buffer B solvent gradient on the RiboSep RNA (non-porous bead) column (GREEN) and a porous bead column sourced from a major HPLC column manufacturer (BLUE). Immediately after, a water blank injection (PURPLE) was run using the same conditions.



No Carryover Contamination

Separation of the a 1,722 nucleotide *in vitro* transcribed mRNA. Running Conditions: 0.75 mL/min flow rate at a column temperature of 75 °C. Run time is 30 minutes using a 35 - 65% Buffer B solvent gradient (BLUE). Immediately after, a water blank injection was run using the same conditions (PURPLE).



