

RESOURCE RPC

Product Information

Cat#No# RE-303P

Product Overview

Resource RPC are prepacked SOURCE 15RPC columns designed for rapid screening experiments, method development, and small-scale protein purification using reversed phase chromatography.

Description

SOURCE 15RPC is based on rigid, monosized 15 µm diameter polystyrene/divinyl benzene beads. The matrix has outstanding selectivity for RPC. The monodispersity of the beads yields stable beds, low back pressures and excellent results at high flow rates. With its high physical and chemical stability and very high batch-to-batch reproducibility, SOURCE 15RPC is well suited for all stages of an industrial scale operation - from research and process development through scale-up and into production. SOURCE 15RPC offers properties superior to those of other polymeric matrices.

Characteristic

Wide pH range (1-12), outstanding selectivity, chemical resistance, high capacity, and high resolution at high flow rates.

Excellent scalability, from RESOURCE to FineLINE columns.

Using ÄKTA design and other high-performance liquid chromatography systems.

Maximum operating pressure

40 bar [4 MPa] (580 psi)

Matrix

Spherical and monodisperse, porous, rigid, polystyrene/divinyl benzene particles.

Average particle size

~ 15 µm

Dynamic binding capacity

~ 18 mg/mL resin; ~ 14 mg Bacitracin/mL resin; ~ 45 mg insulin/mL resin.

Recommended flow rate

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1 to 5 mL/min

Recommended column height

30 mm

Chemical stability

Stable to commonly used aqueous buffers, 1 M HCl, 1 M HCl/90% methanol, 90% acetic acid, 6 M guanidine hydrochloride, 100% npropanol, 100% ethanol, 100% methanol, 100% acetone, 0.45 M NaOH/40% isopropanol, 1.0 M NaOH, 0.1% TFA in water, 0.1% TFA in acetonitrile, 100% isopropanol, 100% tetrahydrofuran.

pH working range

2 to 12

CIP stability

1 to 14

Storage

4 to 30°C, 20% Ethanol or 70% Acetonitrile

Shipping

20% ethanol

Equilibration

1. Wash the column with approximately 3 column volumes of eluent B at a low to moderate flow rate.
2. Run a 2 to 3 column volume linear gradient from 100% eluent B to 100% eluent A at the same flow rate as in step 1.
3. Equilibrate the column with 10 column volumes of eluent A. Continue equilibration until all monitor signals are stable.

Cleaning-in-place

1. Equilibrate the column with at least 10 column volumes of eluent A until the UV signal is stable.
2. Wash using a gradient of 20 to 30 column volumes from 0% to 100% eluent B.
3. Wash the column with at least 10 column volumes of 100% eluent B.

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4. Wash using a gradient of 20 to 30 column volumes from 0% to 100% eluent B.
5. Wash the column with at least 10 column volumes of eluent A.
6. Equilibrate the column in at least 10 column volumes in the eluent A that will be used for the separation if different the eluent used in step 5. Transfer between the two eluents must be performed using a 2 to 3 column volume gradient if the two eluents are significantly different.

Pack size

1 mL

Maximum flow velocity

10 mL/min

Dimensions

6.4 x 30 mm

Column volume

1 ml

Column i.d.

6.4 mm