

## HiPrep DEAE FF

### Product Information

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**Cat#No#** Hi-205P

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### Product Overview

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HiPrep DEAE FF 16/10 is a weak anion exchanger preppacked with DEAE Sepharose Fast Flow, ready-to-use for fast, preparative separations of proteins and other biomolecules using ion exchange (IEX) chromatography.

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### Characteristic

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20 mL HiPrep columns provide fast, reliable, and reproducible preparative ion exchange separations.

Good flow rates and high capacity.

The industry standard for ion exchange chromatography.

Compatible with single-pump configurations and chromatography systems.

Use a weak ion exchanger if the selectivity of a strong ion exchanger is insufficient.

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### Maximum operating pressure

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1.5 bar [0.15 MPa] (22 psi)

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### Sample preparation

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1. Adjust the sample to the composition of the start buffer, using one of these methods: Dilute the sample with start buffer. Exchange buffer using a HiPrep 26/10 Desalting, HiTrap Desalting or PD-10 Desalting column.
  2. Filter the sample through a 0.45 µm filter or centrifuge at 10 000 × g for 10 min immediately before loading it to the column. This prevents clogging and increases the life time of the column when loading large sample volumes.
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### Metal ion capacity

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0.11 to 0.16 mmol Cl<sup>-</sup> /mL resin

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### Matrix

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Cross-linked 6% agarose, spherical

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### Ionic Exchanger Type

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Weak anion

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## HiPrep DEAE FF

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### Average particle size

~ 90 µm

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### Dynamic binding capacity

~ 110 mg HSA/mL resin

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### Recommended flow rate

< 300 cm/h

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### Recommended column height

100 mm

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### Chemical stability

Stable to commonly used aqueous buffers, 1 M NaOH, 8 M urea, 6 M guanidine hydrochloride, 70% ethanol.

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### pH working range

2 to 12

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### CIP stability

2 to 14

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### Storage

4 to 30°C, 20% Ethanol

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### Cleaning-in-place

80 mL of a 2 M NaCl solution (removes ionically bound proteins from the column) followed by 50 mL distilled water.

80 mL of a 1.0 M NaOH solution (removes precipitated proteins, hydrophobically bound proteins, and lipoproteins from the column) followed by 80 mL distilled water.

80 mL of 70% ethanol or 30% isopropanol (removes proteins, lipoproteins, and lipids that are strongly hydrophobically bound to the column) followed by 60 mL distilled water.

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### Purification procedures

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## HiPrep DEAE FF

1. Remove the stoppers and connect the column to the system. Avoid introducing air into the column.
2. Wash with 1 column volume (CV) distilled water. This step removes the ethanol and avoids the precipitation of buffer salts upon exposure to ethanol. The step can be omitted if precipitation is not likely to be a problem.
3. Equilibrate the column with at least 5 CV start buffer or until the UV baseline, eluent pH and conductivity are stable.
4. Adjust the sample to the chosen starting pH and conductivity and load on the column.
5. Wash with 5 to 10 CV start buffer or until the UV trace of the effluent returns to near baseline.
6. Elute, either by linear gradient elution or a step elution, see below. If required, the collected eluted fractions can be buffer exchanged or desalted.
7. Wash with 5 CV of 1 M NaCl (100% elution buffer) to elute any remaining ionically bound material.
8. If required, perform a CIP to clean the column.
9. Re-equilibrate with 5 to 10 CV start buffer or until the UV baseline, eluent pH, and conductivity reach the required values.

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**Pack size**

20 mL

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**Maximum flow velocity**

300 cm/h (10 mL/min)

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**Dimensions**

16 × 100 mm

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**Column i.d.**

16 mm

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**Column hardware pressure limit**

0.5 MPa (5 bar, 72.5 psi)

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**Functional group**

-N<sup>+</sup> (C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>H

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