

Reference guide

# Empty chromatography columns for lab scale





| Column name   | Empty PD gravity-flow column  | C column                                       | Tricorn™ column  | XK column  | HiScale™ column   |
|---|---|--|--|--|---|
| <b>Main features</b>                                      | Plastic columns for operation using gravity flow  | Economical columns for low-pressure operation  | A high-pressure stable column with dimensions that are suitable for small-scale purification | A well-established column suitable for many different purification needs | Facilitated column packing with axial compression capabilities and column measurement scale |
| <b>Max. operating pressure</b>                            | Not applicable  | 1 bar*   | 50/100 bar depending on size of column*  | 3/5 bar depending on size of column*                                     | 20 bar*   |
| <b>Max. bed volume of the largest column in the range</b> | 13 mL   | 520 mL   | 50 mL  | 1860 mL  | 785 mL  |
| <b>For use with</b>                                       | Gravity flow  | Stand-alone pump or chromatography system      | Chromatography system  | Stand-alone pump or chromatography system                                | Chromatography system   |
| <b>Number of adapters supplied with the column</b>        | Not applicable  | Ordered separately                             | 1 adapter included   | 1 adapter included   | 2 adapters included   |
| <b>Available as prepacked column</b>                      | Yes<br>(PD-10 Columns, GraviTrap™)  | No   | Yes<br>(Tricorn GL)  | Yes<br>(HiLoad™)   | Yes<br>(On-demand packing†)   |
| <b>Base matrix compatibility</b>                          |   |  |  |  |   |
| <b>Affinity chromatography</b>                            | Sepharose™ 4B, 6B, CL-4B, CL-6B<br>Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade<br>Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>● | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●   | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●                           | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●  |
| <b>Desalting/buffer exchange</b>                          | Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse   | ●<br>●<br>●                                    | ●<br>●<br>●  | ●<br>●<br>●  | ●<br>●<br>●   |
| <b>Size exclusion chromatography (gel filtration)</b>     | Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade   | ●<br>●<br>●<br>●                               | ●<br>●<br>●<br>●   | ●<br>●<br>●<br>●   | ●<br>●<br>●<br>●  |
| <b>Ion exchange chromatography</b>                        | Sepharose CL-6B<br>Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade<br>Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade                 | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>● | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●   | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●                           | ●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>●<br>● <sup>‡</sup>                                 |
| <b>Hydrophobic interaction chromatography</b>             | Sepharose CL-4B<br>SOURCE 15<br>Sephacryl™<br>Sephacryl™ Superfine<br>Sephacryl™ Fine, Medium, Coarse<br>Superdex™ prep grade   | ●<br>●<br>●<br>●<br>●<br>●                     | ●<br>●<br>●<br>●<br>●<br>●   | ●<br>●<br>●<br>●<br>●<br>●   | ●<br>●<br>●<br>●<br>●<br>●  |
| <b>Multimodal chromatography</b>                          | Capto<br>Capto ImpRes   | ●<br>●   | ●<br>●   | ●<br>●   | ●<br>●  |

\* See page 3 for more information. Pressure conversion from bar to psi and MPa is shown on page 3.

† HiScale columns can be packed on-demand with the resin of your choice — contact your Cytiva representative

‡ 10 µm net ring should be used

● = recommended    ● = combination is possible, but not recommended    ● = not recommended



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Packing HiScale, XK, and Tricorn chromatography columns with Capto and MabSelect resins



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| Column name            | Max. operating pressure |      |     | Column inner diameter (mm) | Approx. min. and max. bed volumes (mL)* | Bed heights min. and max. (mm)* |
|------------------------|-------------------------|------|-----|----------------------------|---|---------------------------------|
|                        | bar                     | psi  | MPa |                            |   |                                 |
| Tricorn 5/20           | 100                     | 1450 | 10  | 5                          | 0.0-0.5                                 | 0-26                            |
| Tricorn 5/50           | 100                     | 1450 | 10  | 5                          | 0.2-1.1                                 | 8-56                            |
| Tricorn 5/100          | 100                     | 1450 | 10  | 5                          | 1.2-2.1                                 | 58-106                          |
| Tricorn 5/150          | 100                     | 1450 | 10  | 5                          | 2.1-3.1                                 | 108-156                         |
| Tricorn 5/200          | 100                     | 1450 | 10  | 5                          | 3.1-4.1                                 | 158-206                         |
| Tricorn 10/20          | 50                      | 725  | 5   | 10                         | 0.0-2.1                                 | 0-26                            |
| Tricorn 10/50          | 50                      | 725  | 5   | 10                         | 0.0-4.4                                 | 0-56                            |
| Tricorn 10/100         | 50                      | 725  | 5   | 10                         | 3.6-8.4                                 | 46-106                          |
| Tricorn 10/150         | 50                      | 725  | 5   | 10                         | 7.6-12.3                                | 96-156                          |
| Tricorn 10/200         | 50                      | 725  | 5   | 10                         | 11.5-16.2                               | 146-206                         |
| Tricorn 10/300         | 50                      | 725  | 5   | 10                         | 19.4-24.1                               | 246-306                         |
| Tricorn 10/600         | 50                      | 725  | 5   | 10                         | 42.9-47.6                               | 546-606                         |
| HiScale 10/40          | 20                      | 290  | 2   | 10                         | 8-31                                    | 100-400                         |
| HiScale 16/20          | 20                      | 290  | 2   | 16                         | 0-40                                    | 0-200                           |
| HiScale 16/40          | 20                      | 290  | 2   | 16                         | 16-80                                   | 80-400                          |
| HiScale 26/20          | 20                      | 290  | 2   | 26                         | 0-106                                   | 0-200                           |
| HiScale 26/40          | 20                      | 290  | 2   | 26                         | 69-212                                  | 130-400                         |
| HiScale 50/20          | 20                      | 290  | 2   | 50                         | 0-393                                   | 0-200                           |
| HiScale 50/40          | 20                      | 290  | 2   | 50                         | 274-785                                 | 140-400                         |
| XK 16/20               | 5                       | 72.5 | 0.5 | 16                         | 0-31                                    | 0-155                           |
| XK 16/40               | 5                       | 72.5 | 0.5 | 16                         | 16-70                                   | 80-350                          |
| XK 16/70               | 5                       | 72.5 | 0.5 | 16                         | 76-130                                  | 380-650                         |
| XK 16/100              | 5                       | 72.5 | 0.5 | 16                         | 136-190                                 | 680-950                         |
| XK 26/20               | 5                       | 72.5 | 0.5 | 26                         | 0-66                                    | 0-125                           |
| XK 26/40               | 5                       | 72.5 | 0.5 | 26                         | 45-186                                  | 85-350                          |
| XK 26/70               | 5                       | 72.5 | 0.5 | 26                         | 204-344                                 | 385-650                         |
| XK 26/100              | 5                       | 72.5 | 0.5 | 26                         | 363-504                                 | 685-950                         |
| XK 50/20               | 3                       | 43.5 | 0.3 | 50                         | 0-274                                   | 0-140                           |
| XK 50/30               | 3                       | 43.5 | 0.3 | 50                         | 0-559                                   | 0-280                           |
| XK 50/60               | 3                       | 43.5 | 0.3 | 50                         | 500-1088                                | 260-560                         |
| XK 50/100              | 3                       | 43.5 | 0.3 | 50                         | 1274-1862                               | 650-950                         |
| C 10/10                | 1                       | 14.5 | 0.1 | 10                         | 0-7                                     | 0-80                            |
| C 10/20                | 1                       | 14.5 | 0.1 | 10                         | 0-14                                    | 0-180                           |
| C 10/40                | 1                       | 14.5 | 0.1 | 10                         | 16-30                                   | 200-380                         |
| C 16/20                | 1                       | 14.5 | 0.1 | 16                         | 0-36                                    | 0-180                           |
| C 16/40                | 1                       | 14.5 | 0.1 | 16                         | 8-77                                    | 40-380                          |
| C 16/70                | 1                       | 14.5 | 0.1 | 16                         | 69-137                                  | 348-680                         |
| C 16/100               | 1                       | 14.5 | 0.1 | 16                         | 129-197                                 | 640-980                         |
| C 26/40                | 1                       | 14.5 | 0.1 | 26                         | 21-202                                  | 40-380                          |
| C 26/70                | 1                       | 14.5 | 0.1 | 26                         | 181-361                                 | 348-680                         |
| C 26/100               | 1                       | 14.5 | 0.1 | 26                         | 340-520                                 | 640-980                         |
| Empty Disposable PD-10 | -                       | -    | -   | -                          | ≤ 13                                    | -                               |

\*The min. values correspond to a packing performed with two adapters.

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