

MediaScout® PipetColumn Starter Kit



⇒ World's simplest and lowest cost chromatography system ⇐

Scope

Atoll offers 6 Starter Kits, each of which consists of a row with 8 PipetColumns packed with different media according to the mode of separation.

Each Starter Kit allows for comparison of 8 different resins and simplifies HTP technology transfer to a 96 well format.

Custom-made kits are also available with the customer's choice of resins.

The screening protocol developed for one row of columns can be transferred to a full 96 well plate.

This technology is offered at a very competitive price.

Instructions

8 PipetColumns with different media are stacked into a slider. The slider position is fixed by the aluminum frame which is located on the top of a UV-readable standard 96-well plate.

Columns are operated by positive liquid displacement pipettes such as Brand HandyStep®/HandyStep® electronic, Gilson Repetman® or Eppendorf Repeater® Plus or Repeater® Stream/Xstream

Procedure

- Prepare appropriate buffers.
- Place the slider on the top of the waste plate.
- Equilibrate (condition) all columns with binding buffer.

Note. Place pipette tip vertically and press it gently into the column inlet to ensure proper sealing between pipette and column.

Apply slow flow rates (max. 0.5 ml/min = 150 cm/h) for best performance.

- Discard flow-through.
- Place slider on the top of collection plate.
- Apply sample(s).
- Collect flow-through into the plate for future reading.
- Advance the slider through the 12 positions as the wells fill with buffer.
- Wash columns with 3 - 4 column volumes of binding (starting, equilibration) buffer.

Note. Increase washing volume, if absorbance of washing flow-through is observed.

- Elute with appropriate buffer into adjacent wells.
- Collect eluate into the plate for future reading.
- Advance the slider upon filling the wells.
- Read results in a plate reader.

Note. It is easy to calculate total amount of protein in the wells by applying discrete and known volume of buffers into each well.

Conclusion

8 different resins can be compared side-by-side in one experimental run to select the best material for target purification.

8 different binding or elution conditions can be checked in one experimental run for purification method development, if 8 columns are packed with same resin.

Pipette operation:

Brand HandyStep = identical to Gilson Repetman / Eppendorf Repeater® Plus

- Manually operated
- suitable for use with Eppendorf Combitips®, Combitips plus and others
- Use small volume tips (100-500 µl)

See e.g. <http://www.brandtech.com/prodpage.asp?prodid=2705100> and <http://www.brandtech.com/prodpage.asp?prodid=705012> or <http://www.eppendorf.com/int/index.php?l=131&sitemap=2.3&pb=c348d938a2ca2788&action=products&contentid=1&productpage=12&catalognode=9620>

Brand HandyStep electronic / Eppendorf Repeater® Plus and Repeater® Stream/Xstream / Gilson Repetman®

- Electrically operated
- Use small volume tips (100-500 µl)

See e.g. <http://www.brandtech.com/prodpage.asp?prodid=705012> or <http://www.eppendorf.com/int/index.php?l=131&sitemap=2.3&pb=53ecd8bbe5a7d7c9&action=products&contentid=1&productpage=12&catalognode=22350> or <http://www.gilson.com/Products/product.asp?plD=266>

Column characteristics:

Dimensions:

- Inner diameter 5 mm
- Bed height 2.5, 5, 10, 22.5, 25 and 30 mm
- Resin volume 50, 100, 200, 450, 500 and 600 µl

Materials:

- polypropylene (columns, adapters, filter with 7-12 µm pores),
- POM (slider),
- aluminum adapter frame,
- silicone rubber cap mats

Eppendorf Multipette® Stream/Xstream

Correlation between flow-rate and selected Combitip Plus volume

V Combitip Plus [ml]	Dispensing Speed 1		Dispensing Speed 2		Dispensing Speed 3	
	Flow- rate [ml/min]	Linear flow- rate [cm/h]	Flow- rate [ml/min]	Linear flow- rate [cm/h]	Flow- rate [ml/min]	Linear flow- rate [cm/h]
0.1	0.17	50	0.25	75	0.35	100
0.2	0.34	100	0.50	150	0.70	200
0.5	0.86	250	1.25	375	1.75	500
1.0	1.70	500	2.50	750	3.50	1000
2.5	4.25	1250	6.25	1875	8.75	2500
5.0	8.60	2500	12.50	3750	17.50	5000
10.0	10.70	5000	25.00	7500	35.00	10000

Dispensing speed 1 is the lowest dispensing speed.



0,1 ml 0,2 ml 0,5 ml 1 ml 2,5 ml 5 ml 10 ml

