



PhyTip® 5K Gel Filtration Desalting Columns

PhyTip 5K gel filtration columns are unique desalting tools from PhyNexus designed for high throughput micro volume desalting of purified protein samples. Patents pending PhyTip 5K gel filtration columns are available for use on the MEA Personal Purification System. Available in 1000 μ L column size containing 200 μ L or 600 μ L 5K gel filtration resin for sample volumes of 20 to 400 μ L.

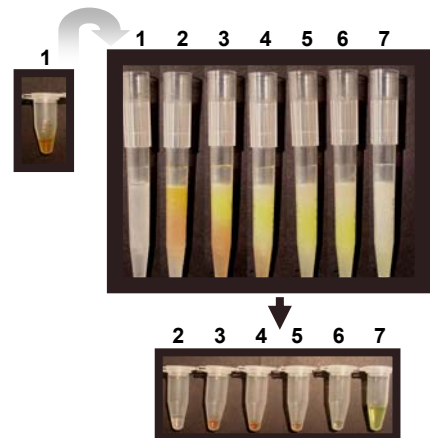
- >75% protein recovery
- >95% salt removal
- <10% CV in volume and concentration
- ~30 min total processing time
- Ability to process small sample volumes in a reproducible, high throughput, automated format

Separation by a PhyTip Gel Filtration Column

Sample (far left microfuge tube #1) containing brown myoglobin protein (16.7kDa) and yellow DNP-glutamate salt (313Da) was loaded onto a 600 μ L PhyTip desalting column.

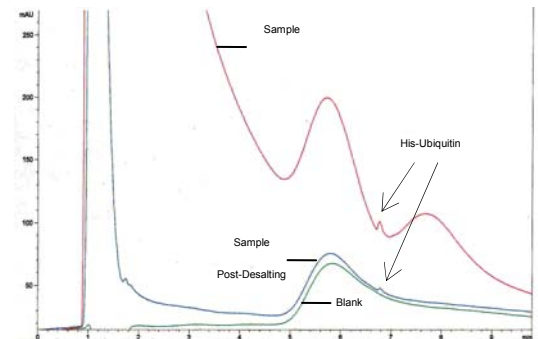
The same PhyTip column at different steps of desalting. From left: 1) column conditioned by PBS buffer prior to sample loading, 2) column after 200 μ L sample has entered the resin bed, 3-6) column after 100 μ L PBS buffer is applied, 7) column after a final chase of 400 μ L PBS buffer.

Microfuge tubes from left: 1) 200 μ L starting sample, 2) flow through collected after sample is applied, 3-6) fractions collected after each 100 μ L chaser, 7) fraction collected after final 400 μ L chaser.



HPLC chromatogram (at right) of His-Tagged ubiquitin at 0.05mg/mL concentration spiked with 250mM imidazole.

300 μ L samples (red) were applied to 600 μ L columns. The resulting desalted sample was collected and adjusted to 300 μ L with water (blue) to compare with the starting sample. Water was injected as a blank (green). The Post-Desalting sample shows both significant recovery of protein and removal of imidazole.



Product comparisons:

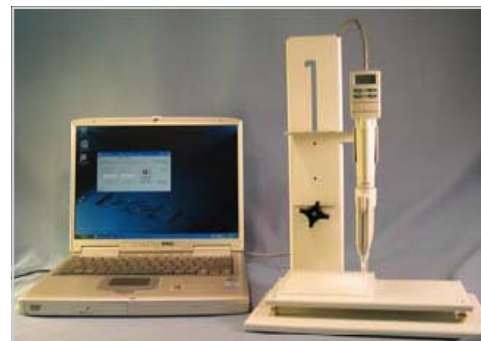
- Complete in a fraction of the time of dialysis - ~30min compared to overnight.
- Unlike spin columns, PhyTip columns simulate traditional chromatography; can control flow and fractionation.
- PhyTip columns are the only gel filtration system that is reproducible, automated, and high throughput.

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PhyTip columns are specifically manufactured for the automated MEA bench top, walk-away system.



PhyTip columns can also be used with the ME 200 and ME 1000 semi-automated purification systems.



PhyTip5K Gel Filtration columns available (part numbers below):

1000 μ L column with 5K resin volume of 200 or 600 μ L

PhyTip 5K columns:

PDR 41-20-06

PDR 91-20-06

PDR 41-60-06

PDR 91-60-06

Description:

48 1ml columns, 200 μ L 5K desalting resin

96 1ml columns, 200 μ L 5K desalting resin

48 1ml columns, 600 μ L 5K desalting resin

96 1ml columns, 600 μ L 5K desalting resin