



PhyNexus, Inc.

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PhyNexus PhyTip® Normal Phase 1 Columns for Glycan Enrichment

Performance information sheet.

This specification sheet provides details on PhyTip Normal Phase 1 Columns

Note: unlike agarose-type affinity resins, PhyTip columns containing Normal Phase 1 resin are not water-swollen and thus are shipped without additives

PhyTip columns are unique capture, purification and enrichment tools from PhyNexus designed for small volume protein sample preparation. PhyTip Normal Phase 1 columns are designed for the purification of glycans, oligosaccharides and complex carbohydrates. PhyTip columns are available for a variety of liquid handling platforms and contain specific affinity resins for application specific requirements.

Samples for purification and enrichment must be clear and free from particulate matter. It is highly recommended to centrifuge samples and use the clear supernatant only, prior to use with PhyTip columns.

PhyTip Columns

PhyTip columns are available in two formats, 200+ with a recommended maximum sample volume of 200 μ L and 1000+ with a recommended maximum volume of 1000 μ L. For each of the PhyTip column formats there are a number of different resin volumes available. Each PhyTip column has been designed for maximum efficiency of capture and elution of the specific protein(s) of interest when using the specified protocol – see below.

Shipping and Storage

Each pack of PhyTip columns has been manufactured and QC'd to the highest standards and shipped in retainer boxes that maintain the integrity of the specific affinity resin within each PhyTip column. This product is shipped at ambient temperatures, but on receipt should be stored in a standard laboratory refrigerator between 4 and 8°C.

- Do NOT freeze or store frozen.
- When not in use, keep the lid of the box closed and sealed, store in the refrigerator.

PhyTip Normal Phase 1 columns are NOT stored with additives when shipped from PhyNexus.

PhyTip Normal Phase 1 columns

PhyTip Normal Phase 1 columns have been optimized for use with specific PhyNexus reagents and instrument flow rates/volumes as shown below. This information was collected using the MEA Personal Purification System.

These columns are ideal for the purification of fluorescently-labeled glycans required the removal of excess dye. PhyNexus recommends using the following buffers:

Conditioning Solution – 20% Acetonitrile

Equilibration Solution – 95% Acetonitrile

Capture Solution – Dilute 200 μ L samples five fold by adding 800 μ L 95% acetonitrile.

Wash Solution – 95% Acetonitrile

Elution Solution – 20% Acetonitrile

1000+ PhyTip Normal Phase 1 columns:

Glycans from at least 500 ng of glycoproteins are digested by conventional methods. Prepare sample by diluting digest 5-fold with 95% acetonitrile.

Condition PhyTip column: 500 μ L Conditioning Solution passed through the resin bed for 2 cycles at a flow rate of 500 μ L per minute with 20 second pauses.

Equilibrate PhyTip column: 500 μ L Equilibration Solution passed through the resin bed for 2 cycles at a flow rate of 500 μ L per minute with 20 second pauses.

Capture: 1000 μ L Sample passed through the resin bed for 8 cycles at a flow rate of 250 μ L per minute with 20 second pauses.

Wash: 1000 μ L Wash Solution passed through the resin bed for 4 cycles at a flow rate of 500 μ L per minute with 20 second pauses. Repeat two more times in fresh Wash Solution.

Enrich: 100 μ L Elution Solution passed through the resin bed for 4 cycles at a flow rate of 250 μ L per minute with 20 second pauses.

200+ PhyTip Normal Phase 1 columns:

Glycans from at least 100 ng of glycoproteins are digested by conventional methods. Prepare sample by diluting digest 5-fold with 95% acetonitrile.

Condition PhyTip column: 100 μ L Conditioning Solution passed through the resin bed for 2 cycles at a flow rate of 250 μ L per minute with 20 second pauses.

Equilibrate PhyTip column: 100 μ L Equilibration Solution passed through the resin bed for 2 cycles at a flow rate of 250 μ L per minute with 20 second pauses.

Capture: 200 μ L Sample passed through the resin bed for 8 cycles at a flow rate of 250 μ L per minute with 20 second pauses.

Wash: 200 μ L Wash Solution passed through the resin bed for 4 cycles at a flow rate of 250 μ L per minute with 20 second pauses. Repeat two more times in fresh Wash Solution.

Enrich: 20 μ L Elution Solution passed through the resin bed for 4 cycles at a flow rate of 250 μ L per minute with 20 second pauses.