

# GLYKOCLEAN™ G CARTRIDGES

(For cleanup of glycan samples)

**Product Code:** GC250

**Pack Size:** 25 cartridges

G Cartridges should be used only once.

**Storage:** Shipped ambient for next day delivery. Store at room temperature.

*NOTE: The sealed package controls cartridge moisture to facilitate equilibration. Store ambient after opening.*

**Application:** Purification of small amounts of glycan samples after a variety of procedures, including:

- reductive amination (Signal™ fluorescent labeling) with 2-AB (2-aminobenzamide) and 2-AA (2-aminobenzoic acid)
- enzyme digestions

## INTRODUCTION

G Cartridges are used in conjunction with the GlykoClean Sample Processing Station (ProZyme product code GC100) for the rapid clean-up of glycan samples for analysis by HPLC or other methods.

G Cartridges contain a proprietary matrix that retains a wide range of glycans in >90% acetonitrile solutions. Most hydrophobic non-glycan contaminants either pass through the cartridge or are retained weakly and may be washed off. The glycans are then eluted from the cartridge with water.

The cartridge is first primed with water and then with a 96% solution of acetonitrile. Then a sample (premixed with acetonitrile solution) is loaded. The glycans adsorb while excess dye is removed by washing with acetonitrile solution. The glycans are then desorbed and eluted by washing with water. Clean-up steps are vacuum-driven and performed with the help of the GlykoClean Sample Processing Station.

*NOTE: G Cartridges cannot be equilibrated, washed nor eluted by gravity.*

## GLYCAN CLEANUP

### Reagents & Materials

Water

96% Acetonitrile Solution [96% acetonitrile (v/v), 4% water (v/v)], from 3 - 4.5 ml per sample.

*NOTE: A higher percentage of water in the acetonitrile solution will cause glycans (especially smaller molecular weight glycans) to elute from the cartridge prematurely.*

*NOTE: Use only HPLC-grade reagents.*

GlykoClean G Cartridges, one cartridge per sample.

### PROCEDURE

**Prepare the GlykoClean Sample Processing Station** (refer to the instructions provided with the station).

## Prepare GlykoClean G Cartridges

1. Add 1 ml of water to each cartridge.
2. Turn on the vacuum and open the valve fully to drain the cartridges.

*NOTE: Water will drain slowly (<2 minutes) from the cartridges. Some differences will be observed between individual cartridges.*

3. Close the valve when all of the cartridges have completely drained. Release the residual vacuum.
4. Add 1 ml of 96% Acetonitrile Solution to each cartridge.
5. Open the valve fully to drain the cartridges.

*NOTE: Acetonitrile Solution will drain faster and more uniformly than water.*

The cartridge is now equilibrated and ready for glycan sample clean-up.

## Process the Samples

1. Dilute each sample (typically 5 to 10  $\mu$ l of 2-AB/2-AA labeling reaction) with 200  $\mu$ l of 96% Acetonitrile Solution. Mix by pipetting three times up and down. Transfer the entire sample to a cartridge.
2. Apply vacuum sparingly by partially opening the valve and slowly drain the cartridges.
3. Wash each cartridge three times with 0.75 ml of 96% Acetonitrile Solution. Apply vacuum sparingly by partially opening the valve to slowly drain the cartridge after each wash.

*NOTE: A wash volume of 0.75 ml is suggested for the clean-up of most samples. Washes with as little as 0.5 ml of 96% Acetonitrile Solution each may result in acceptable clean-up while minimizing solvent use. If necessary, washes with up to 1 ml of 96% Acetonitrile Solution each may be used without affecting glycan recovery.*

Glycans are now ready for elution from the cartridge.

## Elute the Glycan Samples

Elute each sample with 0.5 ml of water (refer to instructions provided with the Station for sample elution procedures).

## Finishing the Samples

Samples may be filtered (if appropriate), evaporated to dryness using a centrifugal evaporator and redissolved in a desired volume of water or other suitable solvent for further analysis.

Store the samples at -20°C in the dark.

## TECHNICAL ASSISTANCE

ProZyme is committed to developing rapid, automatable methods for glycoanalysis. Call us to discuss products in development.

If you have questions or experience difficulties regarding any aspect of our products, please contact us.

