



LudgerClean E Cartridges

Catalog No
LC-EB10-A6

Application:

Purification of glycans from a variety of complex mixtures, including removal of salt and detergents.

Pack size

6 LudgerClean E cartridges

Binding capacity:

Cat. No.	Resin	Vol	Binding Capacity*
LC-EB10-A6	10 mg	1 ml	50 µg glycan

*Typical maximum binding capacity for O- and N-linked glycans

Binding efficiency

> 95% for most glycans

Binding selectivity

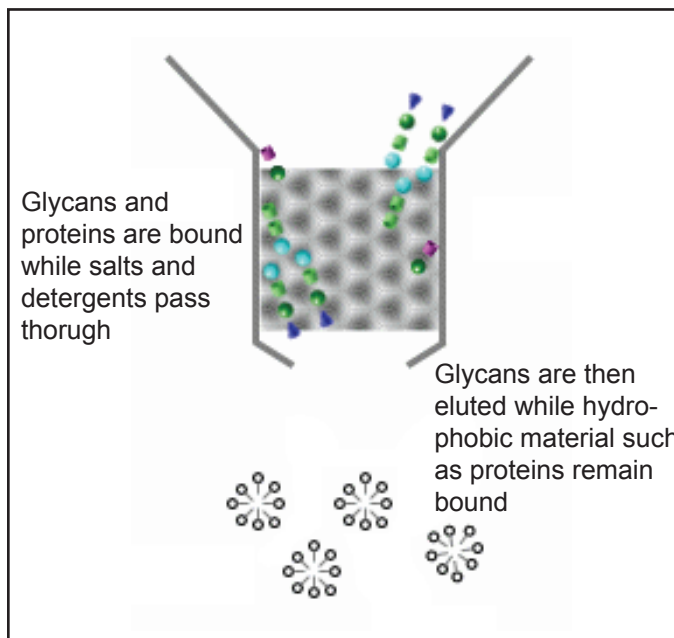
Essentially stoichiometric binding and elution for most complex glycan mixtures.

Structural integrity

No detectable (<2 mole per cent) loss of sialic acid, fucose, sulphate, or phosphate

Additional Reagents Required

- Pure water, HPLC grade
- Methanol
- 1M sodium hydroxide (aq)
- 30% acetic acid (aq)
- Acetonitrile, HPLC grade
- Trifluoroacetic acid (Analar grade)
- Wash A: 5% (v/v) acetonitrile (aq) plus 0.1% trifluoroacetic acid
- Wash B: 50% (v/v) acetonitrile (aq) plus 0.1% trifluoroacetic acid



Description E cartridges have been designed for purification of glycans from non-carbohydrate material including salts, proteins, and detergents. Applications include cleanup of glycans following hydrazinolysis, endoglycosidase digests (including PNGase F digests), and enzyme treatment, and before and after fluorescent labeling.

The cartridges contain a unique Electronic Interaction (EI) matrix. This acts like a super-hydrophobic resin that binds even very hydrophilic glycans. Most salts and detergents either simply pass through the cartridges or bind very lightly and can be washed off before the glycans are eluted.

LC-EB10-A6 E Cartridge
Specifications - Protocol

Glycan Clean-up Protocol

1 Wash the cartridge

Prepare each cartridge by washing with the following:

Reagent	Volume (ml)
methanol	0.5
1M sodium hydroxide	0.5
water	1
30% acetic acid	1
water	1

This removes any impurities that may have bound to the resin matrix during storage.

If the flow is restricted, e.g. by an air gap, then apply a slight pressure to the top of the cartridge (e.g. using a clean, gloved thumb) in order to resume normal flow.

Do not force liquid through the resin bed either by applying excessive pressure or by using a vacuum as these can cause blockage of the porous frits or leakage of resin through the bottom frit.

2 Prime the cartridge

Prime each cartridge with the following:

Reagent	Volume (ml)
Wash B	0.5
Wash A	1

Wash A: 5% (v/v) acetonitrile (aq) plus
0.1% trifluoroacetic acid

Wash B: 50% (v/v) acetonitrile (aq) plus
0.1% trifluoroacetic acid

3 Prepare the glycan sample

The sample to be cleaned must be in either an aqueous buffer or one containing only a low percentage of organic solvent. If the sample contains organic solvent then dilute with water until the organic solvent content is less than 5 % by volume.

4 Apply the sample

Apply the sample to the cartridge.

Glycans should bind to the matrix while salts and non-hydrophobic non-glycan contaminants pass through.

5 Wash off non-glycan contaminants

Wash the cartridge with the following:

Reagent	Volume (ml)
Water	0.7
Wash A	0.7

This washes residual salts and non-hydrophobic non-glycan material off the column.

6 Elute the glycans

Place the cartridge over a collection vessel and recover the glycans by eluting with 4 x 0.2 ml of Wash B allowing each aliquot to drain before the next is applied.

Glycans should be eluted while hydrophobic material such as certain peptides, proteins, and detergents remain bound to the solid phase matrix.

7 Dry the eluted glycans (optional)

If appropriate, evaporate the glycan containing fraction to dryness, then redissolve in a desired volume of water or solvent for further analysis.

8 Filter the eluted glycans

Samples should be filtered to at least 0.5 mm.

Warranty

QA-Bio warrants that the above product conforms to the specification described herein. Should the product fail for reasons other than through misuse, QA-Bio will, at its option, replace the product free of charge or refund the purchase price. This warranty is exclusive and QA-Bio makes no other warranties, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose. QA-Bio shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research use only.

updated November 18, 2008