

GLYCANPAC AXR-1 COLUMNS

Quick Start

1. Overview

The Thermo Scientific™ GlycanPac™ AXR-1 is a high-performance, silica-based HPLC column for separating glycans by charge, isomer structure and size. It provides industry-leading resolution with a unique selectivity for biologically important glycans, either labeled or native, using either fluorescence or MS detection.

2. Main features

- Unique glycan selectivity based on charge, branch/linkage isomerism, and size
- Excellent resolution for either native or derivatized glycans
- Utility for both high-resolution glycan structural characterization and glycan quantification
- Compatibility with both mass spectrometer and fluorescence detection methods
- Reliable column performance
- Available in HPLC (3µm) and UHPLC (1.9µm) formats

3. Physical data (Table 1)

	GlycanPac AXR-1 Column (3 µm)	GlycanPac AXR-1 Column (1.9 µm)
Column chemistry	WAX and RP Mixed-Mode	WAX and RP Mixed-Mode
Silica substrate	Spherical, high-purity, porous	Spherical, high-purity, porous
Particle size	3 µm	1.9 µm
Surface area	220 m ² /g	220 m ² /g
Pore size	175 Å	175 Å

4. Specifications and Recommended Operational Parameters (Table 2)

Column Particle size	Column Dimension	P/N	Maximum Pressure (psi)	pH Range	Temperature Limit (°C)	Solvent/Aqueous Compatibility	Recommended Flow Rate (mL/min)	Maximum Flow Rate (mL/min)
1.9 µm	2.1 x 150 mm	088136	10,000	2.0 – 8.0	< 60	Compatible with 0 – 100% aqueous and common HPLC solvents	0.2 – 0.4	0.5
	2.1 x 250 mm	088135	15,000	2.0 – 8.0	< 60		0.2 – 0.4	0.5
3 µm	4.6 x 150mm	088255	6,000	2.0 – 8.0	< 60		0.8 – 1.2	1.5
	3.0 x 150 mm	088252	6,000	2.0 – 8.0	< 60		0.4 – 0.6	0.75
	2.1 x 150 mm	088251	6,000	2.0 – 8.0	< 60		0.2 – 0.3	0.4

5. Operational Guidelines



NOTE

GlycanPac AXR-1 columns must be stored in solvent containing buffer. It may be used with fully aqueous eluents.

- Operate the column within operating specifications (see Table 1 for details).
- Avoid sudden pressure surges.
- Follow the direction of flow marked on the column.
- Use a guard column or inline filter for samples of biological origin, and replace them frequently.
- Column storage: use mobile phase for short-term storage (< 24 hours) and a solution containing 90% acetonitrile and 10% ammonium formate buffer (e.g. 100 mM, pH4.4) for long-term storage (> 24 hours).
- Mobile phase: Acetonitrile/ammonium formate or acetonitrile/ammonium acetate buffer systems.



NOTE

GlycanPac AXR-1 columns are shipped in a solution containing 90% Acetonitrile and 10 mM NH₄OAc, pH4.4. Flush the column with a solution containing 50% Acetonitrile and 50 mM NH₄OAc, pH4.4 before using the column.

6. Ordering Information (Table 3)

	Particle Size	Column Dimensions	P/N	Required Holder
Analytical	1.9 μm	2.1 x 250 mm	088135	
		2.1 x 150 mm	088136	
	3 μm	4.6 x 150 mm	088255	
		3.0 x 150 mm	088252	
		2.1 x 150 mm	088251	
Guard **	3 μm	4.6 x 10 mm	088260	P/N 069580
		3.0 x 10 mm	088259	P/N 069580
		2.1 x 10 mm	088258	P/N 069580

** Used only with 3 μm particle columns.