

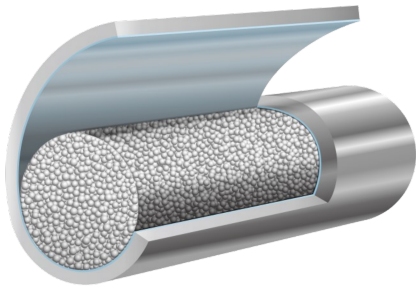
YMC-Accura Triart



Enhance your separation capabilities with the proven strength and precision of YMC-Triart phases packed in bioinert columns.

Features

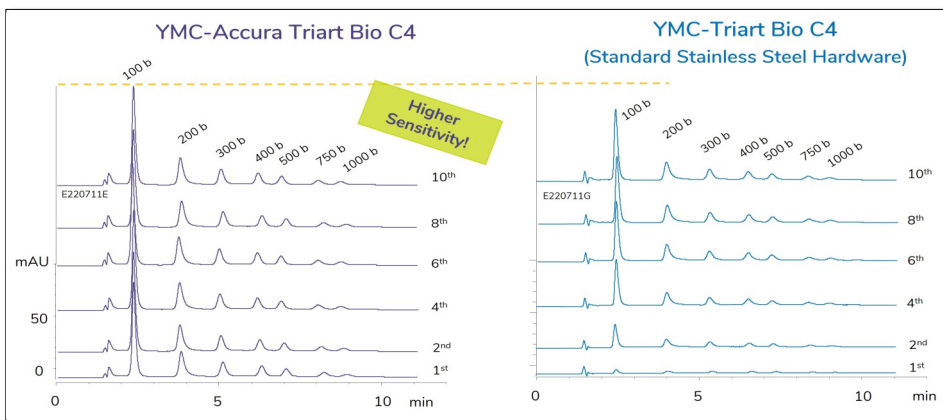
- New surface-coated hardware suppresses interaction between analytes and metals in the column inner surface and frits
- Improved peak shape and high sensitivities
- Excellent recoveries without column preconditioning
- Superior reproducibility and no carry-over effects
- Ideal for highly sensitive LC/MS analyses
- Ideal for oligonucleotides, nucleotides, peptides, proteins, and metal coordinating compounds



Product Specifications

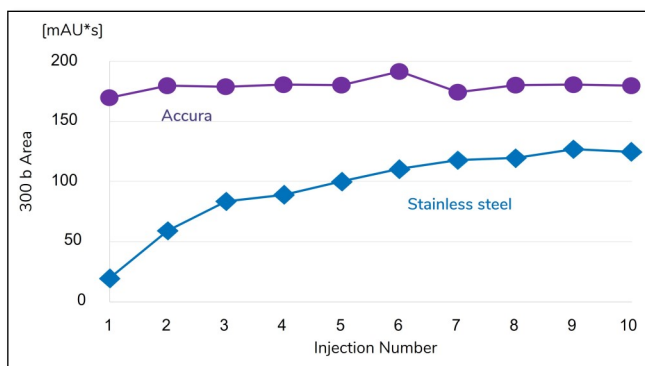
Column Hardware	Stainless steel with bioinert coating (all wetted parts including frits)
Packing Material	YMC-Triart family of resins (all analytical chemistries and particle sizes)
Column Dimensions	2.1mm ID x 50, 100, 150mm length 4.6mm ID x 50, 100, 150mm length (3 & 5µm)
Pressure Limit	100 MPa (or 14,500 psi) for 1.9 µm particles 45 MPa for 3 and 5 µm particles
pH Range	Refer to standard YMC-Triart
Temperature Range	Care & Use guidelines
Connection	Parker-style endfittings

Analysis of RNA molecular weight markers

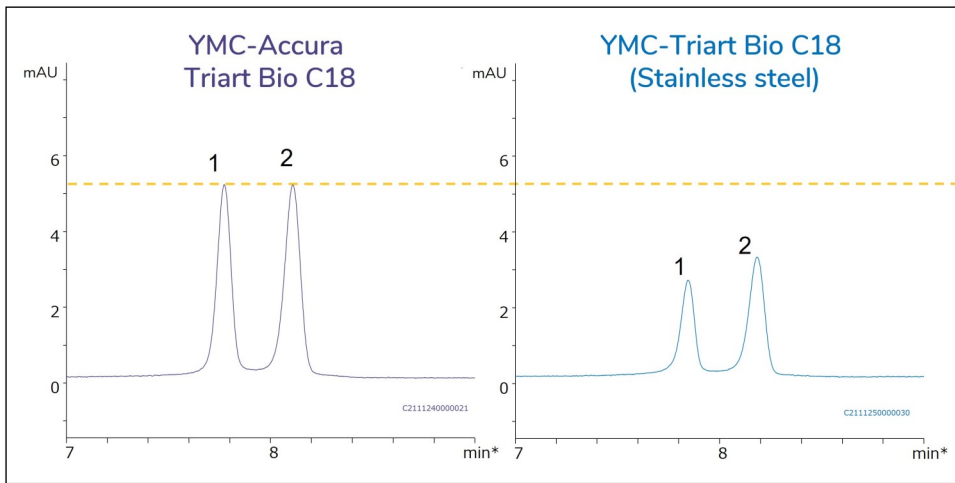


Conditions	
Column	YMC-Accura Triart Bio C4 (1.9µm, 30nm), 100 x 2.1mm ID YMC-Triart Bio C4 (1.9µm, 30nm), 100 x 2.1mm ID (Standard stainless steel column)
Eluent	A) 50mM TEAA (pH 7.0) / acetonitrile (95/5) B) 50mM TEAA (pH 7.0) / acetonitrile (50/50) 9-14% B (0-10 min), 80% B (10-15 min)
Flow rate	0.2 mL/min
Detection	UV at 254nm
Temperature	80° C

Sample: Century™ - Plus RNA Markers
(100-1,000 bases)



YMC-Accura Triart Bio C4 shows stable peak area from the first injection, while the standard stainless steel column provides only 1/10 of the peak area at the first injection. Even after the tenth injection, the peak area of the stainless steel column is considerably less than that of the Accura column.



		Accura	Stainless Steel
Peak height (mAU)	1	5.0	2.5
	2	5.1	3.1
Area (mAU*s)	1	26.1	12.8
	2	29.0	18.3

1. All PS RNA 20mer
2. All PS RNA 21mer

Conditions	
Column	YMC-Accura Triart Bio C18 (1.9µm, 30nm), 50 x 2.1mm ID YMC-Triart Bio C18 (1.9µm, 30nm), 50 x 2.1mm ID (Standard stainless steel column)
Eluent	A) 15mM TEA - 400mM HFIP B) Methanol 8-18% B (0-10 min)
Flow rate	0.42 mL/min
Detection	UV at 260nm
Temperature	65° C
Injection	1.0µL

Sample:

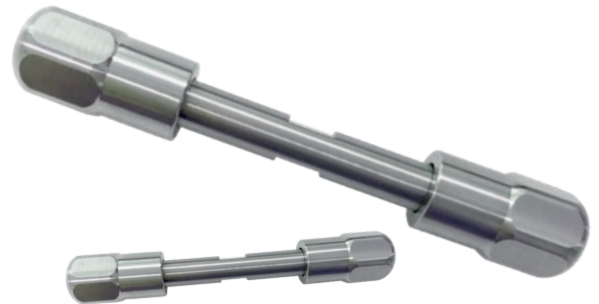
- Oligo All PS RNA 20mer:



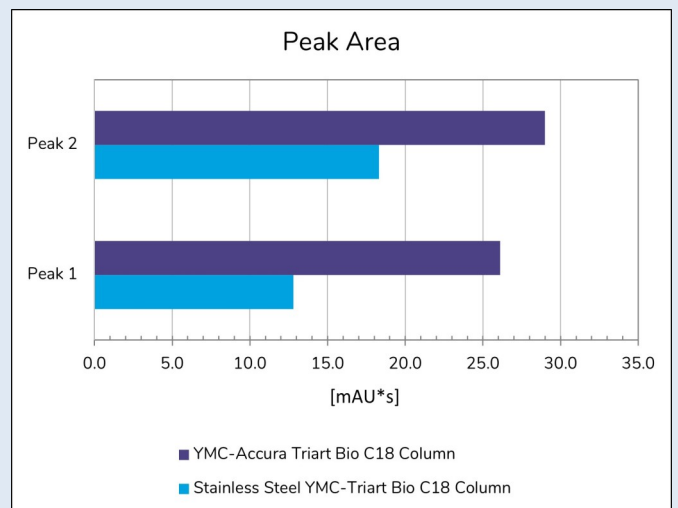
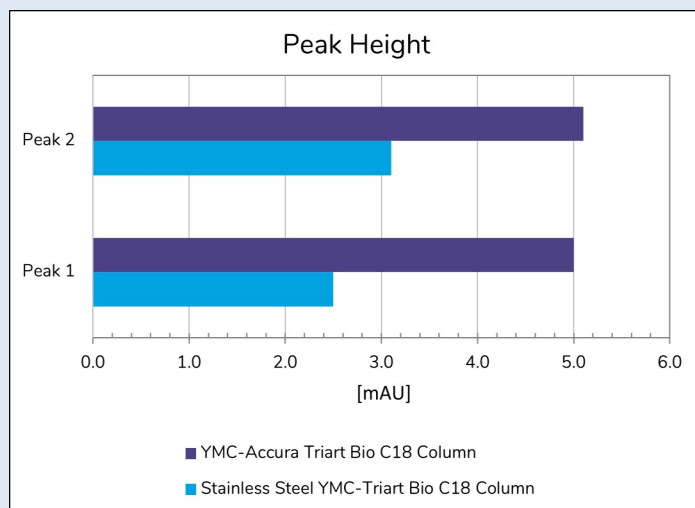
- Oligo All PS RNA 21mer:



^ = Phosphorothioated



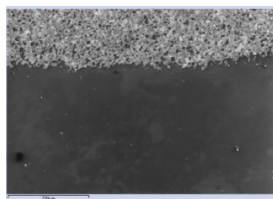
YMC-Accura Triart Bio C18 provides double the peak height and area of the standard YMC-Triart Bio C18 column made of stainless steel hardware. Analytical sensitivity is enhanced, thereby avoiding loss of high-value samples.



Durable coating

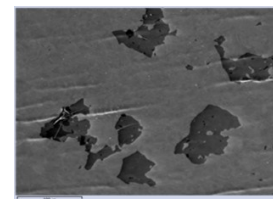
The robust bioinert coating used on YMC-Accura hardware remains on the column wall even after multiple packings.

(The top area was vapor blasted to remove coating for EDS analysis: bare steel)

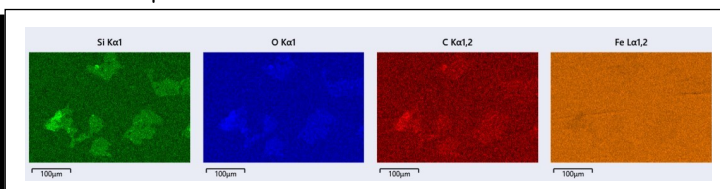
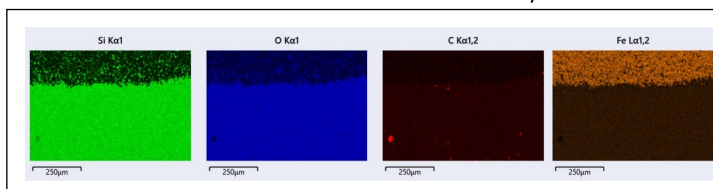


On competing coated hardware, most of the coating is delaminated after unpacking the column.

(The dark spots are the remaining coating)



These EDS analyses show the elemental makeup of the SEMs above.



Accura hardware inertness test

Test Method

- Accura hardware with no material packed inside is connected to an HPLC system.
 - Column dimensions: 50 x 2.1 mm ID
- Various buffers* are run into the column hardware.
- An oligonucleotide sample is injected 20 times.
- Recovery of the oligonucleotide is estimated by peak area. Area obtained without any column hardware is used as the reference (the value is assumed as 100% recovery).

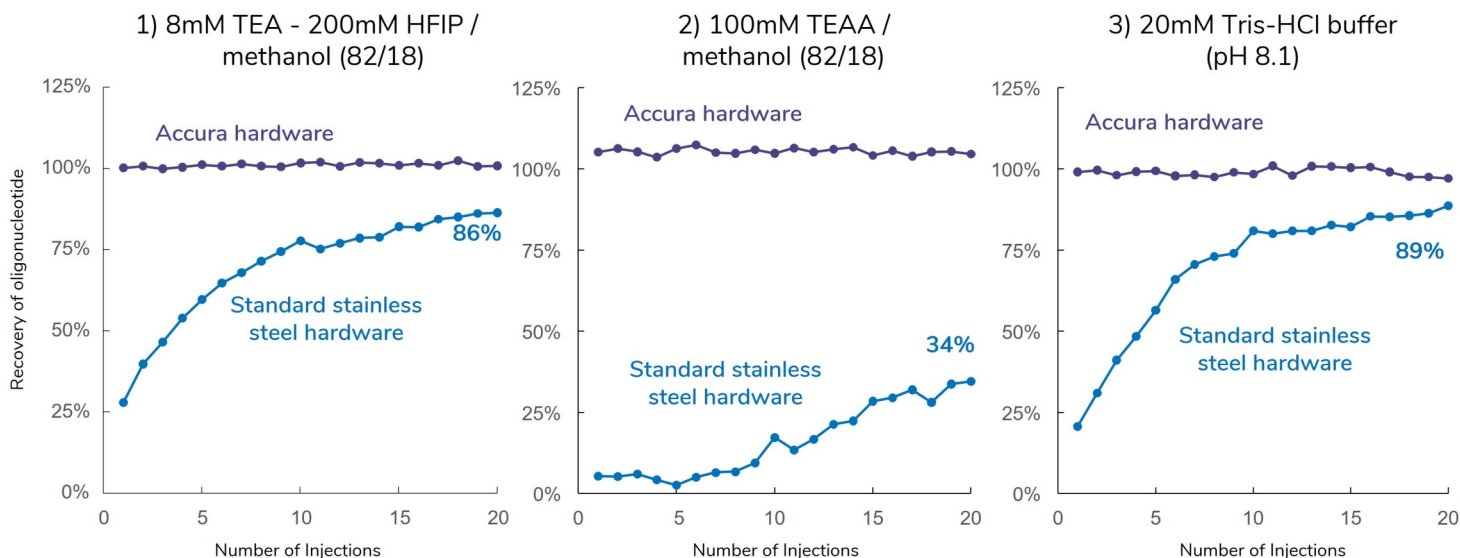
*Buffers

- 8mM TEA - 200mM HFIP / methanol (82/18)
- 100mM TEAA** / methanol (82/18)
- 20mM Tris-HCl buffer (pH 8.1)

** TEAA = Triethylamine-acetic acid

Sample

- Oligo All PS RNA (20mer)
(5'-U[^]C[^]A[^]U[^]C[^]A[^]C[^]A[^]C[^]A[^]U[^]G[^]A[^]A[^]U[^]A[^]C[^]A[^]A[^]U[^]-3')
- [^] = Phosphorothioated



The YMC-Accura hardware with its inert column surface prevents adsorption of oligonucleotides regardless of buffer type. Conditioning injections of sample are not required, ensuring high recovery and reproducibility from the very first use. In addition, YMC-Accura columns provide significantly higher recoveries and sensitivities that cannot be achieved with standard stainless steel columns – even after conditioning the standard columns with 20 sample injections.

YMC-Accura Triart Part Numbers

If you need assistance determining which column is right for your method, please reach out to your local rep or our customer service team.

YMC-Triart Phase	Pore Size	Particle Size	ID (mm)	YMC-Accura Part Number		
				50mm Length	100mm Length	150mm Length
C18	120Å	1.9µm	2.1	TA12SP9-05Q1PTC	TA12SP9-10Q1PTC	TA12SP9-15Q1PTC
			4.6	TA12S03-05Q1PTC	TA12S03-10Q1PTC	TA12S03-15Q1PTC
		3µm	2.1	TA12S03-0546PTC	TA12S03-1046PTC	TA12S03-1546PTC
			4.6	TA12S05-05Q1PTC	TA12S05-10Q1PTC	TA12S05-15Q1PTC
		5µm	2.1	TA12S05-0546PTC	TA12S05-1046PTC	TA12S05-1546PTC
			4.6			
C18 ExRS	80Å	1.9µm	2.1	TAR08SP9-05Q1PTC	TAR08SP9-10Q1PTC	TAR08SP9-15Q1PTC
			4.6	TAR08S03-05Q1PTC	TAR08S03-10Q1PTC	TAR08S03-15Q1PTC
		3µm	2.1	TAR08S03-0546PTC	TAR08S03-1046PTC	TAR08S03-1546PTC
			4.6	TAR08S05-05Q1PTC	TAR08S05-10Q1PTC	TAR08S05-15Q1PTC
		5µm	2.1	TAR08S05-0546PTC	TAR08S05-1046PTC	TAR08S05-1546PTC
			4.6			
Bio C18	300Å	1.9µm	2.1	TA30SP9-05Q1PTC	TA30SP9-10Q1PTC	TA30SP9-15Q1PTC
			4.6	TA30S03-05Q1PTC	TA30S03-10Q1PTC	TA30S03-15Q1PTC
		3µm	2.1	TA30S03-0546PTC	TA30S03-1046PTC	TA30S03-1546PTC
			4.6	TA30S05-05Q1PTC	TA30S05-10Q1PTC	TA30S05-15Q1PTC
		5µm	2.1	TA30S05-0546PTC	TA30S05-1046PTC	TA30S05-1546PTC
			4.6			
C8	120Å	1.9µm	2.1	TO12SP9-05Q1PTC	TO12SP9-10Q1PTC	TO12SP9-15Q1PTC
			4.6	TO12S03-05Q1PTC	TO12S03-10Q1PTC	TO12S03-15Q1PTC
		3µm	2.1	TO12S03-0546PTC	TO12S03-1046PTC	TO12S03-1546PTC
			4.6	TO12S05-05Q1PTC	TO12S05-10Q1PTC	TO12S05-15Q1PTC
		5µm	2.1	TO12S05-0546PTC	TO12S05-1046PTC	TO12S05-1546PTC
			4.6			
Bio C4	300Å	1.9µm	2.1	TB30SP9-05Q1PTC	TB30SP9-10Q1PTC	TB30SP9-15Q1PTC
			4.6	TB30S03-05Q1PTC	TB30S03-10Q1PTC	TB30S03-15Q1PTC
		3µm	2.1	TB30S03-0546PTC	TB30S03-1046PTC	TB30S03-1546PTC
			4.6	TB30S05-05Q1PTC	TB30S05-10Q1PTC	TB30S05-15Q1PTC
		5µm	2.1	TB30S05-0546PTC	TB30S05-1046PTC	TB30S05-1546PTC
			4.6			
Phenyl	120Å	1.9µm	2.1	TPH12SP9-05Q1PTC	TPH12SP9-10Q1PTC	TPH12SP9-15Q1PTC
			4.6	TPH12S03-05Q1PTC	TPH12S03-10Q1PTC	TPH12S03-15Q1PTC
		3µm	2.1	TPH12S03-0546PTC	TPH12S03-1046PTC	TPH12S03-1546PTC
			4.6	TPH12S05-05Q1PTC	TPH12S05-10Q1PTC	TPH12S05-15Q1PTC
		5µm	2.1	TPH12S05-0546PTC	TPH12S05-1046PTC	TPH12S05-1546PTC
			4.6			
PFP	120Å	1.9µm	2.1	TPF12SP9-05Q1PTC	TPF12SP9-10Q1PTC	TPF12SP9-15Q1PTC
			4.6	TPF12S03-05Q1PTC	TPF12S03-10Q1PTC	TPF12S03-15Q1PTC
		3µm	2.1	TPF12S03-0546PTC	TPF12S03-1046PTC	TPF12S03-1546PTC
			4.6	TPF12S05-05Q1PTC	TPF12S05-10Q1PTC	TPF12S05-15Q1PTC
		5µm	2.1	TPF12S05-0546PTC	TPF12S05-1046PTC	TPF12S05-1546PTC
			4.6			
DioI-HILIC	120Å	1.9µm	2.1	TDH12SP9-05Q1PTC	TDH12SP9-10Q1PTC	TDH12SP9-15Q1PTC
			4.6	TDH12S03-05Q1PTC	TDH12S03-10Q1PTC	TDH12S03-15Q1PTC
		3µm	2.1	TDH12S03-0546PTC	TDH12S03-1046PTC	TDH12S03-1546PTC
			4.6	TDH12S05-05Q1PTC	TDH12S05-10Q1PTC	TDH12S05-15Q1PTC
		5µm	2.1	TDH12S05-0546PTC	TDH12S05-1046PTC	TDH12S05-1546PTC
			4.6			



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