

YMC-Triart C18



가장 보편적이고 높은 내구성의 First Choice Column



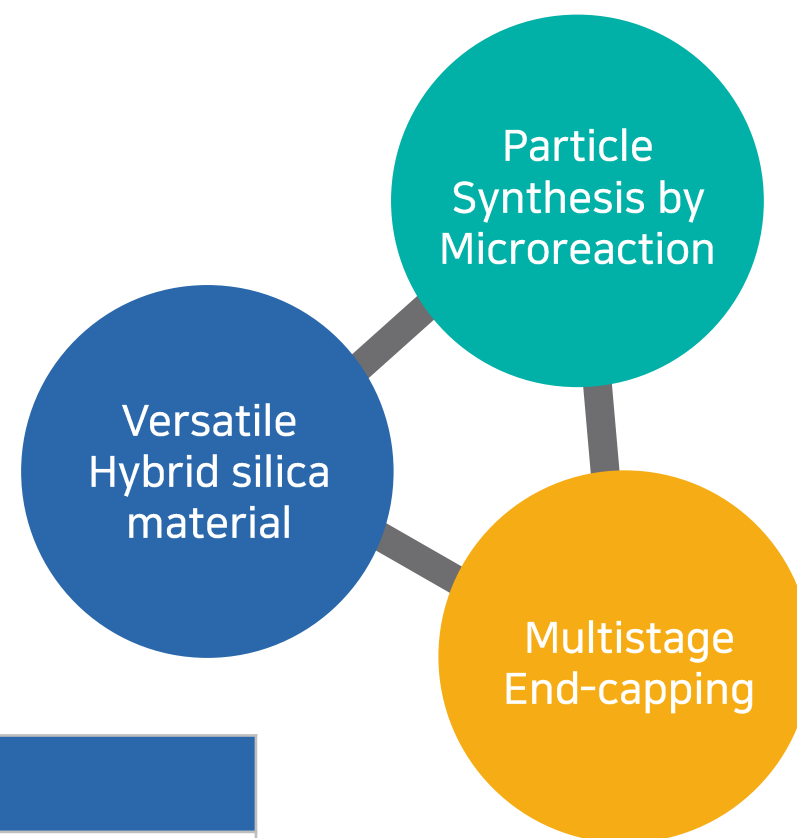
YMC-Triart C18은 “사용자 편의성”을 고려한 유기 Silica Hybrid Column으로써 탁월한 내구성과 뛰어난 Peak 형태, 재현성·저압력의 3개의 특징을 갖춘 ODS로, 각종 화합물에 대한 First Choice Column으로서 효과적입니다.

▶ Triart C18의 특징

1. 유기 Silica Hybrid입자의 탁월한 내구성
2. 흡착, Tailing없는 뛰어난 Peak 형상
3. Particle size에 관계없이 Peak 형상 및 선택성 동일
4. 생체 시료 등 미량 성분 분석에 적합

▶ 사양

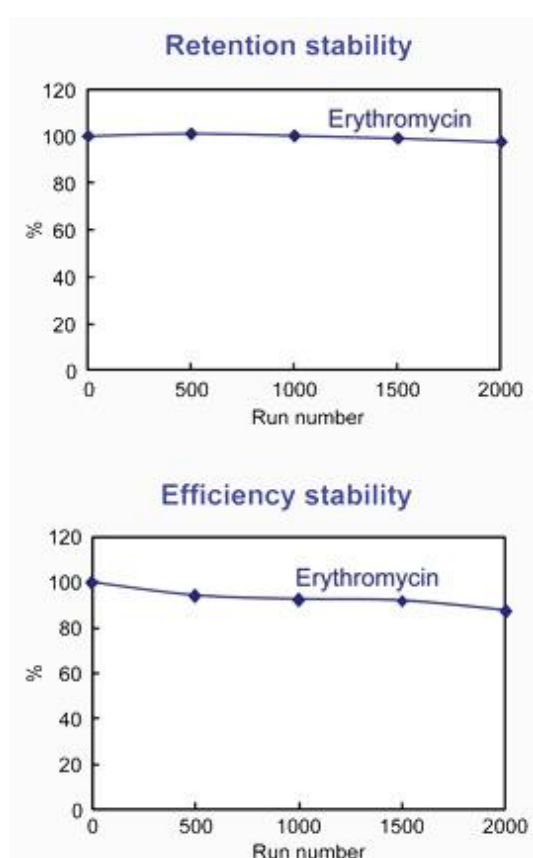
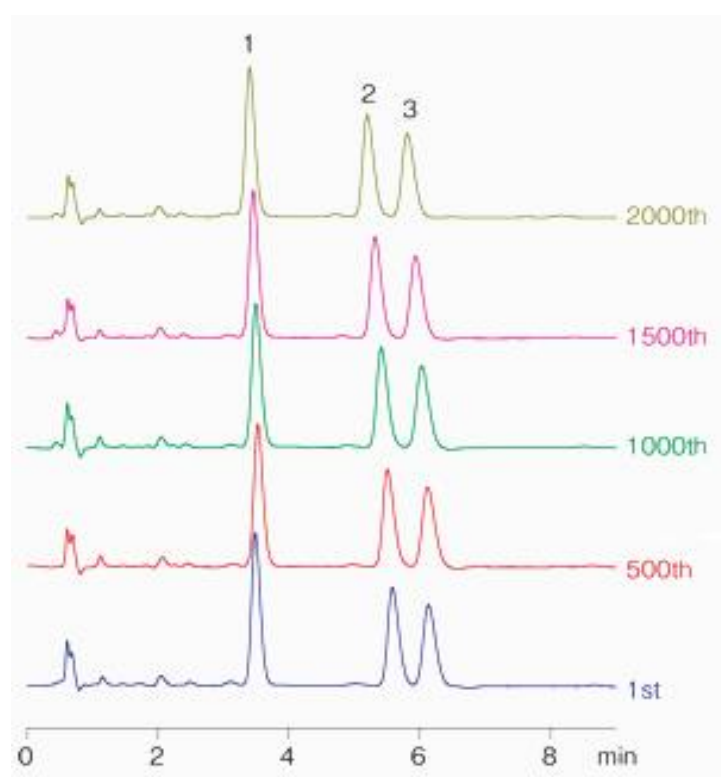
SPECIFICATION	
Base	organic/inorganic hybrid silica
Particle Size	1.9 μ m, 3 μ m, 5 μ m
Pore Size	12nm
Carbon contents	20%
Usable pH range	1 ~ 12
Max Pressure	길이 50 ~ 150 : 20MPa
	길이 250mm : 25MPa
	내경 10mmID 이상 : 10MPa



▶ 어려운 분석 조건에서도 긴 수명

유기 Silica Hybrid 기재의 세밀한 표면 수식으로 탁월한 내구성을 확보하여 광범위한 pH 및 높은 온도 조건에서 사용 가능. 아래 Data의 Erythromycin은 산에 불안정해 중성 이상의 pH를 가진 이동상에서도 안정적인 분석 가능.

pH 7.9, 70°C 에서의 연속 분석

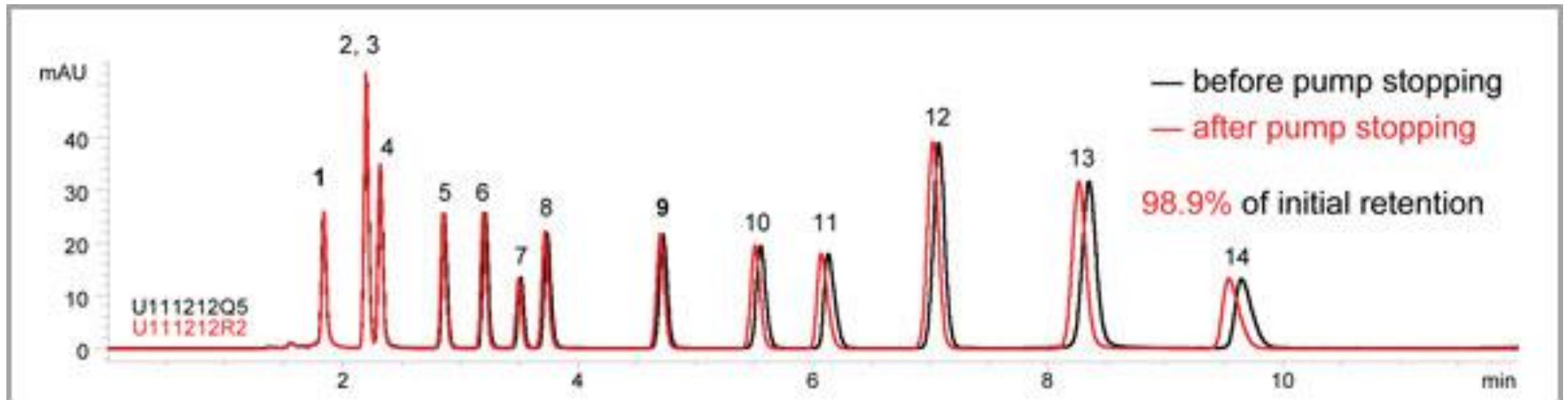


Column : YMC-Triart C18 (3 μ m, 12 nm)
50 X 2.0 mmI.D.
Eluent : 20 mM KH₂PO₄-K₂HPO₄ (pH 7.9)/
acetonitrile/methanol (40/45/15)
Flow rate : 0.2 mL/min
Temperature : 70°C
Detection : UV at 210 nm

1. Erythromycin
2. Erythromycin ethylsuccinate
3. Erythromycin estolate

▶ 물 100% 이동상에서도 사용 가능

일반적인 C18 Column에서는 물 100% 이동상 조건에서 충전제 표면의 소수기와 물의 반발에 따라 분석이 어렵지만, Triart C18은 C18 배위 결합의 밀도 최적화를 통해서 물 100%의 이동상 조건에서도 우수한 Retention time과 재현성 확보.



Column : YMC-Triart C18 (3 μ m, 12 nm)
150 X 3.0 mm I.D.
Eluent : 20 mM H₃PO₄
Flow rate : 0.425 mL/min
Temperature : 37°C
Detection : UV at 220 nm

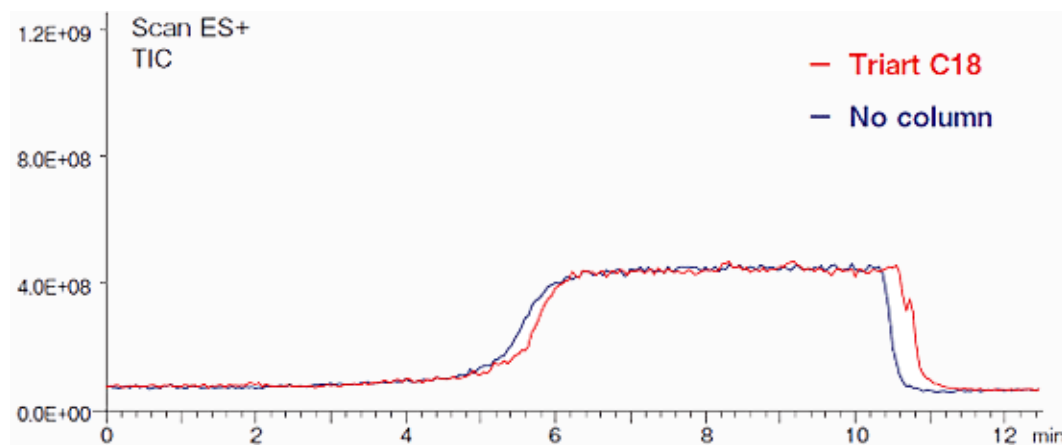
- | | | | |
|------------------|--------------------|-------------------|------------------|
| 1. Oxalic acid | 2. Tartaric acid | 3. Glycolic acid | 4. Formic acid |
| 5. L-Malic acid | 6. Malonic acid | 7. Malonic acid | 8. Acetic acid |
| 9. Maleic acid | 10. Citric acid | 11. Succinic acid | 12. Fumaric acid |
| 13. Acrylic acid | 14. Propionic acid | | |

▶ LC/MS에 적합한 Low Bleeding설계

LC/MS에 Triart C18을 연결하여 측정한 TIC는 Column이 없을 때와 동일하게 나와 Column 본래의 Bleeding이 발견되지 않음.

따라서, Triart C18 Column에서는 Back Ground Noise가 감소하여 감도 향상.

LC/MS로 Bleed실험



Column : 5 μ m, 50 X 2.0 mm I.D.
Eluent : A) water/formic acid (100/0.1)
B) acetonitrile/formic acid (100/0.1)
5%B (0-1 min), 5-100%B (1-5 min), 100%B (5-10 min),
100-5%B (10-10.1 min), 5%B (10.1-12.5 min)
Flow rate : 0.4 mL/min
Temperature : 40°C
Detection : ESI positive, TIC (Mass Range: 50-1000)

▶ Triart 시리즈 Line-Up

Line-Up	USP ClassNo.	Particle Size (μ m)	탄소 함유율 (%)	사용pH Range	특징
Triart C18	L1	1.9 μ m 3 μ m 5 μ m	20	1 ~ 12	First Choice Column으로 적합
Triart C18 ExRS	L1		25		고소수성의 구조이성질체 및 유사체 분리에 적합
Triart C8	L7		17		저극성 화합물의 단시간 분석 및 이성질체의 분리에 적합
Triart Phenyl	L11		17	1 ~ 10	방향족 화합물 및 공액계가 긴 화합물 분리에 적합
Triart PFP	L43		15	1 ~ 8	극성 상호 작용에 의해 극성 화합물 및 구조이성질체의 분리에 효과적
Triart Diol-HILIC	L20		12	2 ~ 10	고극성 화합물의 RT, 분리에 적합

Specification

■ 분석용 Column
(Max. pressure : 45 MPa, 접속 type: parker type)

Particle size	Pore size	Column size (I.D. x Length)	Product Number
3μm	12nm	2.1 x 20	TA12S03-02Q1PTH
		2.1 x 33	TA12S03-H3Q1PTH
		2.1 x 50	TA12S03-05Q1PTH
		2.1 x 75	TA12S03-10Q1PTH
		2.1 x 100	TA12S03-15Q1PTH
		3.0 x 50	TA12S03-0503PTH
		3.0 x 75	TA12S03-L503PTH
		3.0 x 100	TA12S03-L503PTH
		3.0 x 150	TA12S03-1503PTH
		4.6 x 33	TA12S03-H346PTH
		4.6 x 50	TA12S03-0546PTH
		4.6 x 100	TA12S03-1046PTH
		4.6 x 150	TA12S03-1546PTH
		4.6 x 150	TA12S03-1546PTH
		4.6 x 250	TA12S03-2546PTH
5μm	12nm	2.1x 20	TA12S05-02Q1PTH
		2.1x 30	TA12S05-H3Q1PTH
		2.1x 50	TA12S05-05Q1PTH
		2.1x 75	TA12S05-L5Q1PTH
		2.1x 100	TA12S05-10Q1PTH
		2.1x 150	TA12S05-15Q1PTH
		3.0 x 50	TA12S05-0503PTH
		3.0 x 75	TA12S05-L503PTH
		3.0 x 100	TA12S05-1003PTH
		3.0 x 150	TA12S05-1503PTH
		4.0 x 150	TA12S05-1504PTH
		4.0 x 250	TA12S05-2504PTH
		4.6 x 33	TA12S05-H346PTH
		4.6 x 50	TA12S05-0546PTH
		4.6 x 75	TA12S05-L546PTH
		4.6 x 100	TA12S05-1046PTH
		4.6 x 150	TA12S05-1546PTH
		4.6 x 250	TA12S05-2546PTH

■ 분석용 Column
(Max. pressure : 10-25 MPa, depending on dimensions)

Particle Size	Pore Size	Column size (I.D. X Length)	Product Number
3 μm	12 nm	2.0 X 20 mm	TA12S03-0202WT
		2.0 X 30 mm	TA12S03-0302WT
		2.0 X 50 mm	TA12S03-0502WT
		2.0 X 75 mm	TA12S03-0502WT
		2.0 X 100 mm	TA12S03-1002WT
		2.0 X 150 mm	TA12S03-1502WT
		3.0 X 50 mm	TA12S03-0503WT
		3.0 X 75 mm	TA12S03-L503WT
		3.0 X 100 mm	TA12S03-1003WT
		3.0 X 150 mm	TA12S03-1503WT
		4.6 X 33 mm	TA12S03-H546WT
		4.6 X 50 mm	TA12S03-0546WT
		4.6 X 75 mm	TA12S03-L546WT
		4.6 X 100 mm	TA12S03-1046WT
		4.6 X 150 mm	TA12S03-1546WT
		4.6 X 250 mm	TA12S03-2546WT
5 μm	12 nm	2.0 X 20 mm	TA12S05-0202WT
		2.0 X 30 mm	TA12S05-0302WT
		2.0 X 50 mm	TA12S05-0502WT
		2.0 X 75 mm	TA12S05-L502WT
		2.0 X 100 mm	TA12S05-1002WT
		2.0 X 150 mm	TA12S05-1502WT
		3.0 X 50 mm	TA12S05-0503WT
		3.0 X 75 mm	TA12S05-L503WT
		3.0 X 100 mm	TA12S05-1003WT
		3.0 X 125 mm	TA12S05-R503WT
		3.0 X 150 mm	TA12S05-1503WT
		4.0 X 125 mm	TA12S05-R504WT
		4.0 X 150 mm	TA12S05-1504WT
		4.0 X 250 mm	TA12S05-2504WT
		4.6 X 35 mm	TA12S05-H546WT
		4.6 X 50 mm	TA12S05-0546WT
		4.6 X 75 mm	TA12S05-L546WT
		4.6 X 100 mm	TA12S05-1046WT
		4.6 X 150 mm	TA12S05-1546WT
		4.6 X 250 mm	TA12S05-2546WT
		6.0 X 150 mm	TA12S05-1506WT
		6.0 X 250 mm	TA12S05-2506WT

Specification

Semi Prep Column

Particle Size	Pore Size	Column Size (I.D. x Lenght)	Product Number
5 μm	12 nm	10 x 150 mm	TA12S05-1510WT
		10 x 250 mm	TA12S05-2510WT

고내압 Semi Prep Column (YMC-Actus Triart C18)

Particle Size	Pore Size	Column Size (I.D. x Lenght)	Product Number
5 μm	12 nm	20 x 50 mm	TA12S05-0520WX
		20 x 100 mm	TA12S05-1020WX
		20 x 150 mm	TA12S05-1520WX
		20 x 250 mm	TA12S05-2520WX
		30 x 50 mm	TA12S05-0530WX
		30 x 75 mm	TA12S05-L530WX
		30 x 100 mm	TA12S05-1030WX
		30 x 150 mm	TA12S05-1530WX
		30 x 250 mm	TA12S05-2530WX

EXP® Guard Cartridge Columns (Max.Pressure : 100MPa, 3/pack)

Particle Size	Pore Size	Column Size (I.D. x Lenght)	Product Number
1.9 μm	12 nm	2.1 x 5 mm	TA12SP9-E5Q1CC
		3.0 x 5 mm	TA12SP9-E503CC

Cartridge Holder

Product		Product Number
EXP®direct connect holder *1 : 2 titanium hybrid ferrules and 1 nut included *2 : Ferrule is adjustable. Pressure rated to 140 MPa		XPCHUHP
Cartridge holder (Inner diameter: 1.0-4.0 mm, holder and column coupler)	Length : 10mm	XPGCH-Q1
	Length : 20mm	XPGCH-Q2
Semi-prep Cartridge Holder	I.D. : 10mm	XPCHSPW1
	I.D. : 20mm	XPCHSPW2
	I.D. : 30mm	XPCHSPW3

Guard Cartridge Columns

Particle Size	Pore Size	Column Size I.D. x Lenght	/pack	Product Number
3 μm	12 nm	2.1 x 10 mm	5	TA12S03-01Q1GC
			1	TA12S03-01Q1GC-1
		2.1 x 20 mm	5	TA12S03-02Q1GC
			1	TA12S03-02Q1GC-1
		3.0 x 10 mm	5	TA12S03-0103GC
			1	TA12S03-0103GC-1
		3.0 x 20 mm	5	TA12S03-0203GC
			1	TA12S03-0203GC-1
		4.0 x 10 mm	5	TA12S03-0104GC
			1	TA12S03-0104GC-1
5 μm	12 nm	4.0 x 20 mm	5	TA12S03-0204GC
			1	TA12S03-0204GC-1
		2.1 x 10 mm	5	TA12S05-01Q1GC
			1	TA12S05-01Q1GC-1
		2.1 x 20 mm	5	TA12S05-02Q1GC
			1	TA12S05-02Q1GC-1
		3.0 x 10 mm	5	TA12S05-0103GC
			1	TA12S05-0103GC-1
		3.0 x 20 mm	5	TA12S05-0203GC
			1	TA12S05-0203GC-1
		4.0 x 10 mm	5	TA12S05-0104GC
			1	TA12S05-0104GC-1
		4.0 x 20 mm	5	TA12S05-0204GC
			1	TA12S05-0204GC-1
		10 x 10 mm	2	TA12S05-0110CC
		20 x 10 mm	2	TA12S05-0120CC
		30 x 10 mm	2	TA12S05-0130CC