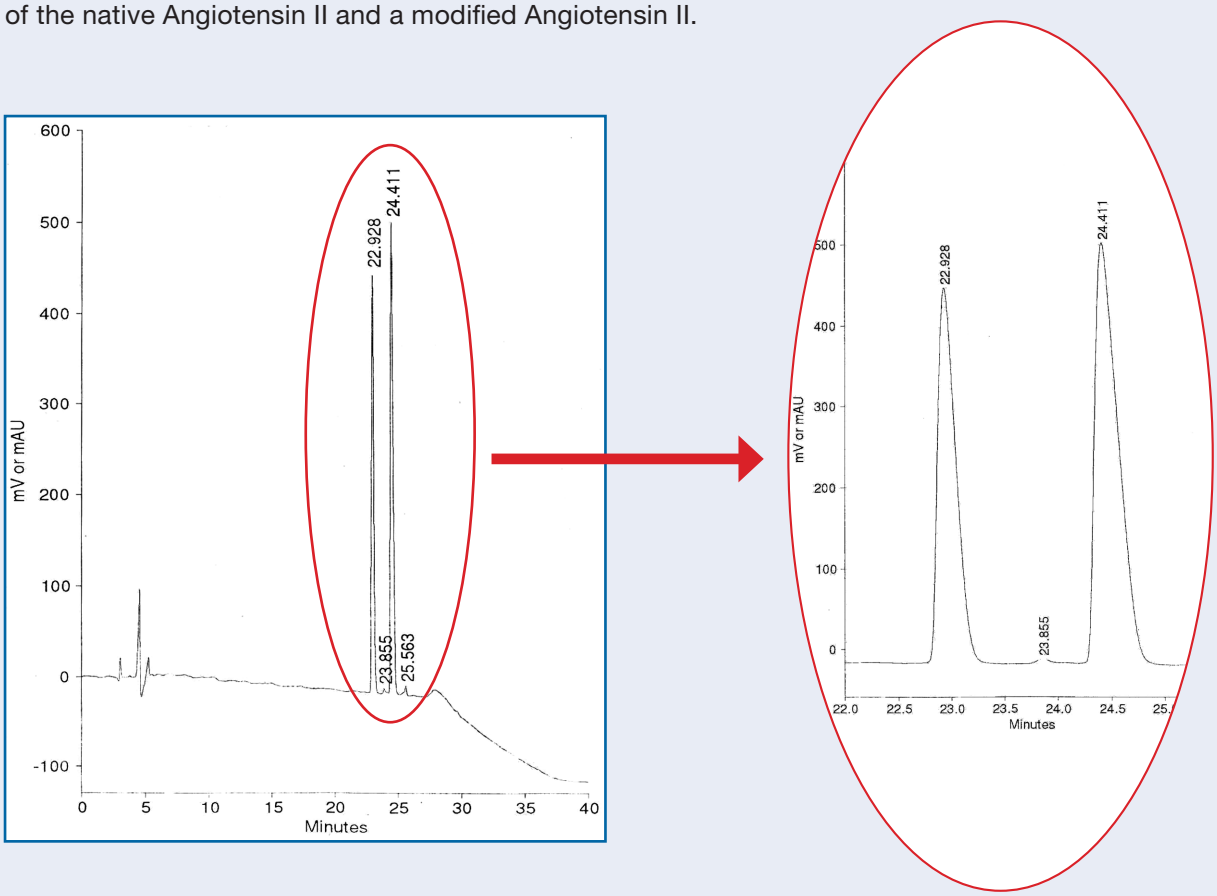
Product Information

YMC-Triart
C8; 5 µm

YMC-Triart C8 shows best separation for Angiotensins

Author: AB
Date: 01-07-2014

Angiotensins are peptide hormones which play a major role in blood pressure regulation. As they cause an increase in blood pressure, they are a target of medicinal and pharmaceutical investigation. Therefore, efficient separation of Angiotensins and their modified forms is a prerequisite for research and development. Angiotensin II is an octapeptide. The University of Regensburg (Germany) compared separation efficiencies of columns from three different suppliers with the aim for preparative cleanup of the native Angiotensin II and a modified Angiotensin II.



Separation of Angiotensin II and its modified form on YMC-Triart C8, 5 µm particle size, 12 nm pore size, 250 × 4.6 mm ID; YMC Part number: TO12S05-2546WT

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YMC EUROPE GMBH

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Supplier	YMC	Phenomenex	Macherey-Nagel	YMC	Phenomenex
Column	YMC-Triart C8	Gemini-NX C18	Nucleodur C18	YMCbasic C8	Kinetex XB C18
Δ Peak 1 and Peak 2 [min]	1.483	1.446	1.335	1.226	1.159
RT Peak 1 [min]	22.93	18.33	18.52	20.36	19.76
RT Peak 2 [min]	24.41	19.78	19.86	21.59	20.92
Back pressure [bar]	76	66	122	77	90
Length [mm]	250				
ID [mm]	4.6		4	4.6	
Particle Size [µm]	5				

The two target molecules show the greatest difference in retention time on YMC-Triart C8, making the method most suitable for preparative scale. It also exhibits a low back pressure which has advantages for preparative scale equipment requirements.

Conditions	
Eluent	A: 0.05% trifluoroacetic acid in water B: acetonitrile
Gradient	10% B (0 min), 72% B (23 min), 95% B (33 min), 95% B (40 min)
Flow rate	0.8 ml/min
Temperature	30 °C
Detection	UV at 220 nm
Sample	Angiotensin II Modified Angiotensin II
Injection	100 µl (50 µM each)

YMC-Triart is the choice for Angiotensin separation and purification:
- **Optimum separation**
- **Scalability from UHPLC through analytical LC to preparative LC**
- **Efficient purification**

YMC thanks Dr. Keller (University of Regensburg) for kindly providing these data.