

# APPLICATION

## Extraction and LC/MS/MS Analysis of a Peptide (Goserelin) from Human Serum Using Strata®-X-CW Microelution 96-Well Solid Phase Extraction (SPE) Plates and an Aeris™ WIDEPORÉ 3.6 µm XB-C18 HPLC Column

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### Overview

This application note describes an ultra-sensitive extraction method to isolate a peptide (Goserelin) from serum using Strata-X-CW Microelution 96-well SPE plates followed by LC/MS/MS analysis using an Aeris WIDEPORÉ 3.6 µm XB-C18 HPLC column. By using the Microelution SPE format, we were able to skip the dry down step which saved at least 30 minutes and also helped to avoid loss of the peptide. Goserelin was analyzed by LC/MS/MS in under 3 minutes and was accurately quantified at 5 ng/mL.

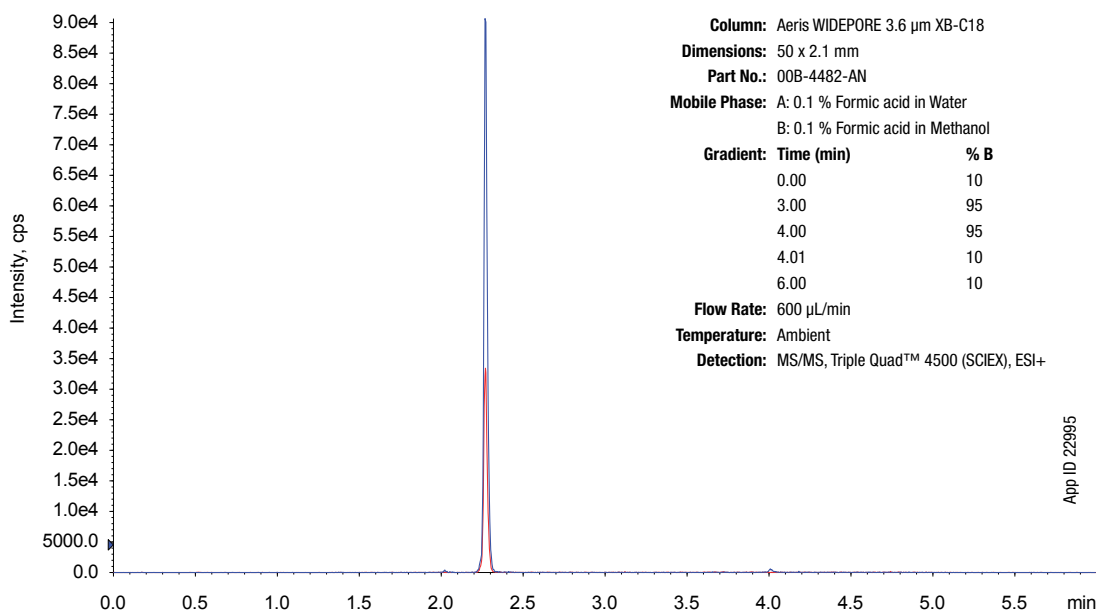
### Absolute Recovery of Goserelin Extracted from Serum at 5 ng/mL

Peptide	RT (min)	% Absolute Recovery	% CV (N=10)
Goserelin	2.27	98	5.8

### Extraction Procedure

**Microelution 96-Well Plate:** Strata-X-CW Microelution 96-Well Plate, 2 mg/well  
**Part No.:** 8M-S035-4GA  
**Condition:** 200 µL Methanol  
**Equilibrate:** 200 µL Water  
**Load:** 400 µL diluted serum (200 µL serum diluted 1:1 with 4 % Phosphoric acid in water)  
**Wash 1:** 200 µL 5 % Ammonium hydroxide in water  
**Wash 2:** 200 µL 20 % Acetonitrile in water  
**Elute:** 2x 25 µL Trifluoroacetic acid/Acetonitrile/Methanol (1:74:25)  
**Inject:** 2 µL

### Representative Chromatogram of Goserelin Extracted from Serum



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## Ordering Information

### Aeris™ WIDEPORE 3.6µm HPLC Columns

Minibore Columns (mm)					SecurityGuard™ ULTRA Cartridges*
Phases	50 x 2.1	100 x 2.1	150 x 2.1	250 x 2.1	3/pk
XB-C18	00B-4482-AN	00D-4482-AN	00F-4482-AN	00G-4482-AN	AJO-8783



for 2.1 mm ID

Analytical Columns (mm)				SecurityGuard ULTRA Cartridges*
Phases	100 x 4.6	150 x 4.6	250 x 4.6	3/pk
XB-C18	00D-4482-E0	00F-4482-E0	00G-4482-E0	AJO-8769

for 4.6 mm ID

\* SecurityGuard ULTRA cartridges require holder part number, AJO-9000

### Strata®-X-CW Solid Phase Extraction (SPE)

Format	Sorbent Mass	Part Number	Unit
<b>Microelution 96-Well Plate</b>			
	2 mg	8M-S035-4GA	1 Plate/Box
<b>96-Well Plate</b>			
	10 mg	8E-S035-AGB	2 Plates/Box
	30 mg	8E-S035-TGB	2 Plates/Box
	60 mg	8E-S035-UGB	2 Plates/Box
<b>Tube</b>			
	30 mg	8B-S035-TAK*	1 mL (100/box)
	30 mg	8B-S035-TBJ	3 mL (50/box)
	60 mg	8B-S035-UBJ*	3 mL (50/box)
	100 mg	8B-S035-ECH	6 mL (30/box)
	200 mg	8B-S035-FBJ	3 mL (50/box)
	200 mg	8B-S035-FCH	6 mL (30/box)
	500 mg	8B-S035-HBJ	3 mL (50/box)
	500 mg	8B-S035-HCH	6 mL (30/box)

\* Tabless tubes available



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