



## Supel<sup>™</sup> Carbon LC column

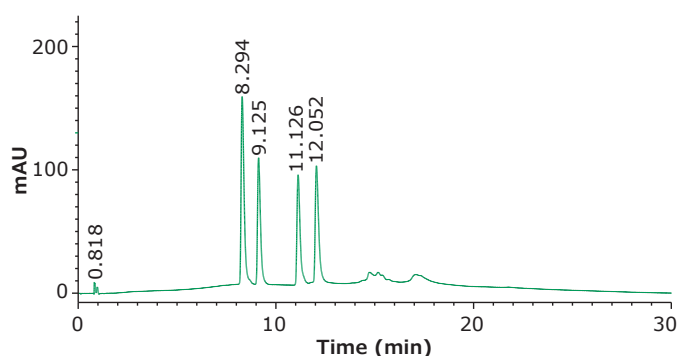
Porous Graphitic Carbon (PGC) particle packed column for separating poorly retained, polar compounds.

Supel<sup>™</sup> Carbon LC particles offer a unique retention mechanism that can retain polar compounds under reversed-phase conditions. This same retention mechanism can also lead to resolution of geometric isomers of compounds.

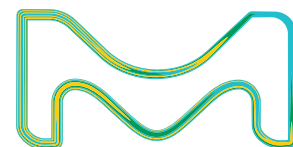
### Supel<sup>™</sup> Carbon LC Specifications

Particle Platform	Porous Graphitic Carbon (PGC)
Particle Size	2.7 $\mu\text{m}$
Pore Size	200 $\text{\AA}$
Surface Area	155 $\text{m}^2/\text{g}$
pH Range	1 - 14
Maximum Temperature	250 $^{\circ}\text{C}$

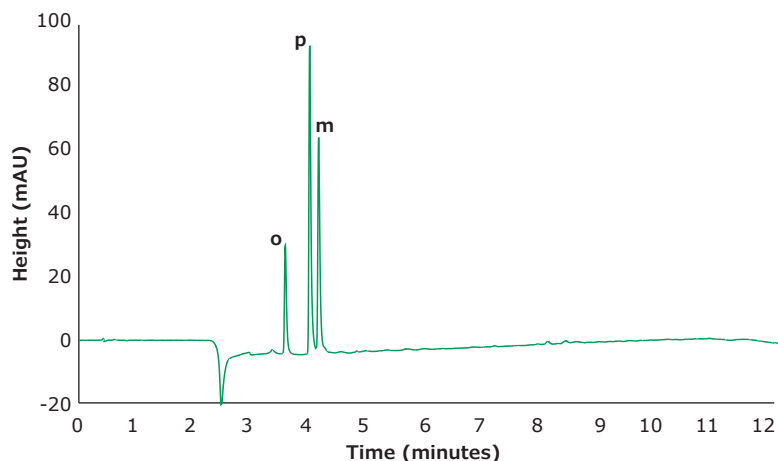
Peaks	Compound	Ret. Time (min)
1	3-epi-25-hydroxyvitamin D3 (50 $\mu\text{g}/\text{mL}$ )	8.294
2	25-hydroxyvitamin D3 (25 $\mu\text{g}/\text{mL}$ )	9.125
3	3-epi-25-hydroxyvitamin D2 (50 $\mu\text{g}/\text{mL}$ )	11.126
4	25-hydroxyvitamin D2 (100 $\mu\text{g}/\text{mL}$ )	12.052



Chromatographic separation of Vitamin D2 and D3 metabolites on Supel<sup>™</sup> Carbon LC. Conditions: Column: Supel Carbon<sup>™</sup> LC, 10 cm x 2.1 mm I.D., 2.7  $\mu\text{m}$ ; Mobile Phase: [A] 2-Propanol; [B] Tetrahydrofuran; Gradient: 0% B to 70% B in 15 min; hold at 70% B for 5 min; Flow Rate: 0.3 mL/min; Column Temp.: 25  $^{\circ}\text{C}$ ; Detector: UV, 275 nm; Injection: 2.0  $\mu\text{L}$ ; Sample: Vitamin D2 and D3 metabolites mix, varied concentration, ethanol



## Separation of Toluic Acid Isomers on Supel™ Carbon LC



**Column:** Supel™ Carbon LC;  
5 cm x 3.0 mm I.D., 2.7 µm

**Mobile Phase:** [A] 20 mM ammonium bicarbonate in water, pH 9.0 with ammonium hydroxide [B] acetonitrile

**Gradient:** Hold at 0% B for 1 minute; 0% B to 100% B in 10 minutes; Hold at 100% B for 1 minute

**Flow Rate:** 0.6 mL/min

**Column Temp:** 50 °C

**Detector:** UV, 230 nm

**Sampling Rate:** 20 Hz

**Injection:** 0.750 µL

**Sample:** m/o/p-toluic acid, 67 µg/mL in water

Product	I.D. (mm)	Length (cm)	Content	Cat. No.
Supel™ Carbon LC column	2.1	10	1 U/HPLC Column	59986-U
Supel™ Carbon LC column	3.0	10	1 U/HPLC Column	59993-U
Supel™ Carbon LC column	4.6	10	1 U/HPLC Column	59998-U
Supel™ Carbon LC column	2.1	15	1 U/HPLC Column	59987-U
Supel™ Carbon LC column	3.0	15	1 U/HPLC Column	59994-U
Supel™ Carbon LC column	2.1	5.0	1 U/HPLC Column	59984-U
Supel™ Carbon LC column	3.0	5.0	1 U/HPLC Column	59991-U
Supel™ Carbon LC column	4.6	5.0	1 U/HPLC Column	59997-U
Supel™ Carbon LC column Guard Cartridge Kit	2.1	2.0	1 Guard Cartridge + 1 Guard Cartridge Holder	59982-U
Supel™ Carbon LC column Guard Cartridge Kit	3.0	2.0	1 Guard Cartridge + 1 Guard Cartridge Holder	59989-U
Supel™ Carbon LC column Guard Cartridge Kit	4.0	2.0	1 Guard Cartridge + 1 Guard Cartridge Holder	59996-U
Supel™ Carbon LC Guard Cartridge	2.1	2.0	3 Guard Cartridges	59981-U
Supel™ Carbon LC Guard Cartridge	3.0	2.0	3 Guard Cartridges	59988-U
Supel™ Carbon LC Guard Cartridge	4.0	2.0	3 Guard Cartridges	59995-U
Guard Cartridge Holder for Supel™ Carbon LC Guard Cartridges	N/A	N/A	1 Guard Cartridge Holder	59999-U

### To place an order or receive technical assistance

Order/Customer Service: [SigmaAldrich.com/order](https://www.sigmaaldrich.com/order)  
 Technical Service: [SigmaAldrich.com/techservice](https://www.sigmaaldrich.com/techservice)  
 Safety-related Information: [SigmaAldrich.com/safetycenter](https://www.sigmaaldrich.com/safetycenter)

[SigmaAldrich.com](https://www.sigmaaldrich.com)

MilliporeSigma  
 400 Summit Drive  
 Burlington, MA 01803

