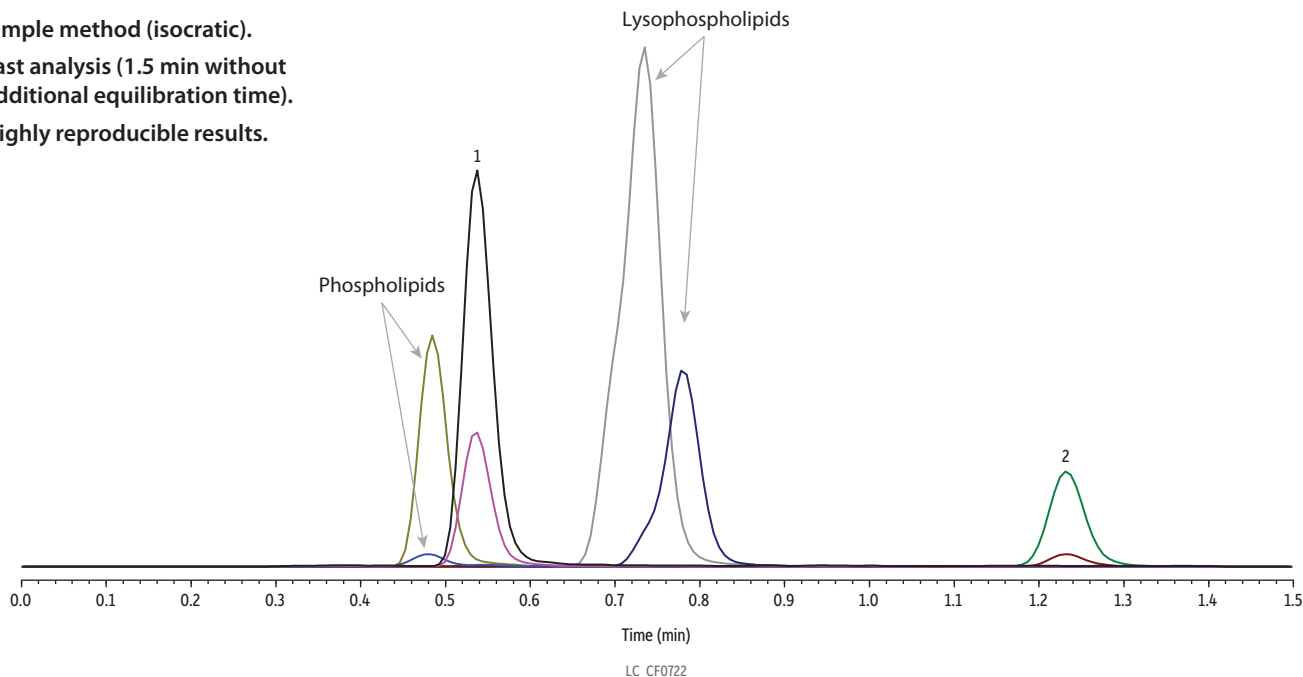


## Creatine and Creatinine in Human Plasma on Raptor HILIC-Si by LC-MS/MS

- Simple method (isocratic).
- Fast analysis (1.5 min without additional equilibration time).
- Highly reproducible results.



Peaks	tr (min)	Precursor Ion	Product Ion	Product Ion
1. Creatinine	0.537	114.0	44.3	86.0
2. Creatine	1.232	132.1	43.3	90.2

**Column** Raptor HILIC-Si (cat.# 9310A52)  
**Dimensions:** 50 mm x 2.1 mm ID  
**Particle Size:** 2.7 µm  
**Pore Size:** 90 Å  
**Guard Column:** UltraShield UHPLC precolumn filter 0.2 µm (cat.# 25810)  
**Temp.:** 40 °C

**Sample**  
**Diluent:** 20:80 Water:acetonitrile  
**Conc.:** Endogenous levels  
**Inj. Vol.:** 0.2 µL

**Mobile Phase**  
**A:** 5 mM Ammonium formate in 20:80 water:acetonitrile

Time (min)	Flow (mL/min)	%A
0.00	0.5	100
1.5	Stop	

**Detector** MS/MS  
**Ion Mode:** ESI+  
**Mode:** MRM  
**Instrument** UHPLC

**Notes**  
**Sample Preparation:**  
 Endogenous levels of creatinine and creatine in human plasma were determined using a single protein precipitation step followed by LC-MS/MS analysis. A 50 µL aliquot of human plasma (K2EDTA) was mixed with 950 µL acetonitrile. After vortexing and centrifuging at 4,300 rpm for 10 min, 200 µL of the supernatant was transferred to a new vial and mixed with 50 µL of water. Centrifugation was performed again before injection.