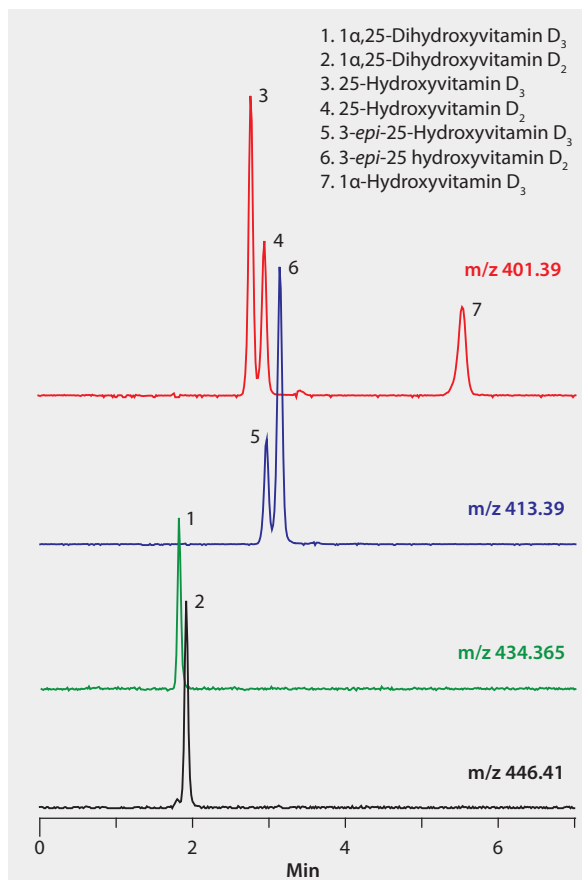


## LC/MS/MS Analysis of Vitamin D Metabolites on Ascentis® Express F5 (Monitored Ions)

The metabolic role and health implications of the various vitamin D isoforms are of current clinical interest. Therefore, it is important to have an analytical method that will resolve all of the known isoforms with necessary sensitivity and specificity. This application shows that a combination of Ascentis Express F5 with MS detection provided rapid resolution of seven such compounds. Fluka LC-MS Ultra CHROMASOLV solvents were used to supply low background interference and low particulate contaminants for robust, trouble-free operation. Cerilliant CRMs provided reliable identification and quantification.

market focus	Clinical; Vitamins, Nutraceuticals, and Natural Products
column	Ascentis Express F5, 15 cm x 2.1 mm I.D., 2.7 µm particles (53571-U)
mobile phase	[A] 5 mM ammonium formate water; [B] methanol; (25:75, A:B)
flow rate	0.4 mL/min
pressure	5178 psi (357 bar)
column temp.	40 °C
detector	ESI(+), 100-1000 m/z
injection	2 µL, each compound 300 ng/mL in 40:60 (water:methanol)
Application No.	G005876



**Related Products**

**analytical column**  
Ascentis® Express F5, 2.7 Micron HPLC Column (Supelco 53571-U)  
**mobile phase component**  
Ammonium formate (Fluka 70221)  
Methanol (Fluka 14262)  
Water (Fluka 14263)

**Related Products**

**standard**  
1α,25-Dihydroxyvitamin D2 solution (Cerilliant H-090)  
1α,25-Dihydroxyvitamin D3 solution (Cerilliant H-089)  
1α-Hydroxyvitamin D3 (Sigma 17946)  
3-epi-25-Hydroxyvitamin D3 (Aldrich 705993)  
25-Hydroxyvitamin D2 solution (Cerilliant H-073)  
25-Hydroxyvitamin D3 solution (Cerilliant H-083)  
3-epi-25-Hydroxyvitamin D2 solution (Aldrich 753556)