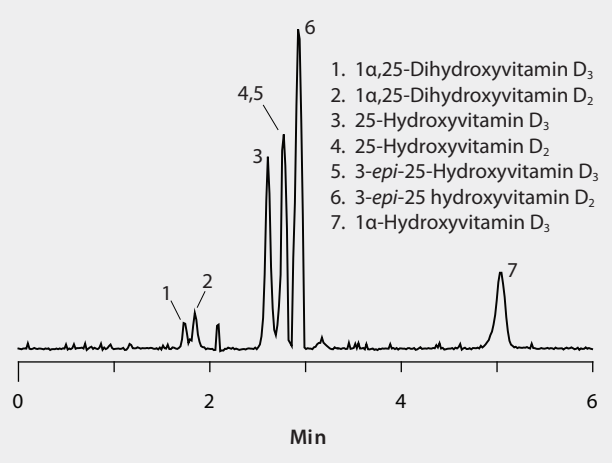
Email: techserv@sial.com

LC/MS/MS Analysis of Vitamin D Metabolites on Ascentis® Express F5

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 an Ascentis Express F5 provided rapid resolution of the isobaric vitamin D metabolites. MS detection provides the necessary secondary resolution. 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.	G005878



Related Products

analytical column
Ascentis® Express F5, 2.7 Micron HPLC Column (Supelco 53571-U)

mobile phase component
Ammonium formate (Fluka 14266)
Methanol (Fluka 14262)
Water (Fluka 14263)

standard
1α,25-Dihydroxyvitamin D2 solution (Cerilliant H-090)
1α,25-Dihydroxyvitamin D3 solution (Cerilliant H-089)
1α-Hydroxyvitamin D_3 (Sigma 17946)
3-*epi*-25-Hydroxyvitamin D_3 (Aldrich 705993)
25-Hydroxyvitamin D2 solution (Cerilliant H-073)
25-Hydroxyvitamin D3 solution (Cerilliant H-083)
3-*epi*-25-Hydroxyvitamin D_2 solution (Aldrich 753556)