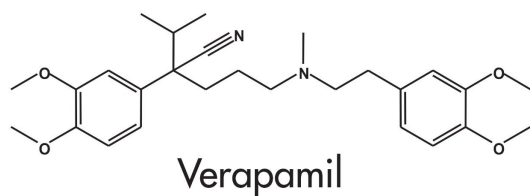

A 3D ball-and-stick model of a complex organic molecule, likely a nucleotide derivative. The structure features a central sugar-phosphate backbone. The sugar moiety is a five-membered ring with a blue nitrogen atom at the top position. Attached to the sugar are two phosphate groups, each represented by a central phosphorus atom (grey) bonded to four oxygen atoms (red). The molecule is shown in a perspective view, highlighting its three-dimensional structure.

This application brief highlights the analysis of verapamil by LC-MS using XTerra MS C₁₈ columns.

Introduction

Verapamil has been analyzed in this application brief.



Experimental

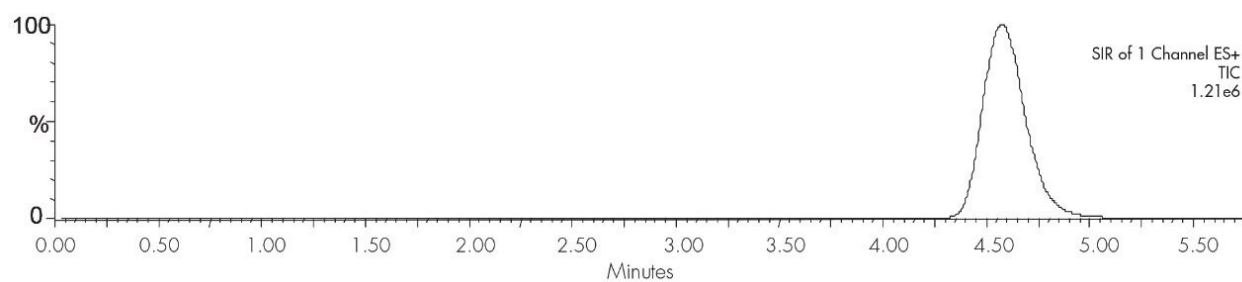
HPLC Conditions

Column:	XTerra MS C ₁₈ 2.1 x 30 mm, 3.5 μm (p/n: 186000398)
Mobile phase A:	0.1% HCOOH in H ₂ O, pH 2.5
Mobile phase B:	0.1% HCOOH in ACN, pH 2.5
Flow rate:	0.2 mL/min to MS
Isocratic mobile phase composition:	77% A; 23% B
Injection volume:	20 μL of 100 pg/μL
Temperature:	Ambient
Detection:	MS ESI+, SIR 455.45
Instrument:	Alliance 2795 HT, Micromass ZQ

MS Conditions

MS system:	Micromass ZQ
Source:	ESI+
Capillary (KV):	3.0
Cone (V):	35
Extractor:	3.0
RF Lens:	0.5
Source temp.:	150
Desolvation temp.:	350
Cone gas flow (L/Hr):	60
Desolvation gas flow (L/Hr):	500
LM resolution:	15
HM resolution:	15
Ion energy:	1.0
Multiplier (V):	650

Results and Discussion



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WA20738.115, June 2002