

Valproic acid (2-propylpentanoic acid)

Application Note

Clinical Research

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Sil 5 CB column quantifies valproic acid in serum in five minutes.



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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB, 0.53 mm x 10 m fused silica
WCOT CP-Sil 5 CB (df = 4.87 μ m)
(Part no. CP7645)
Temperature : 60 °C (1 min) \boxtimes 220 °C, 39.99 °C/min
Injector : Direct
Detector : FID
T = 150 °C
Sample Size : 0.5 μ L
Concentration Range : 0.37 mg/mL
Solvent Sample : carbon tetrachloride

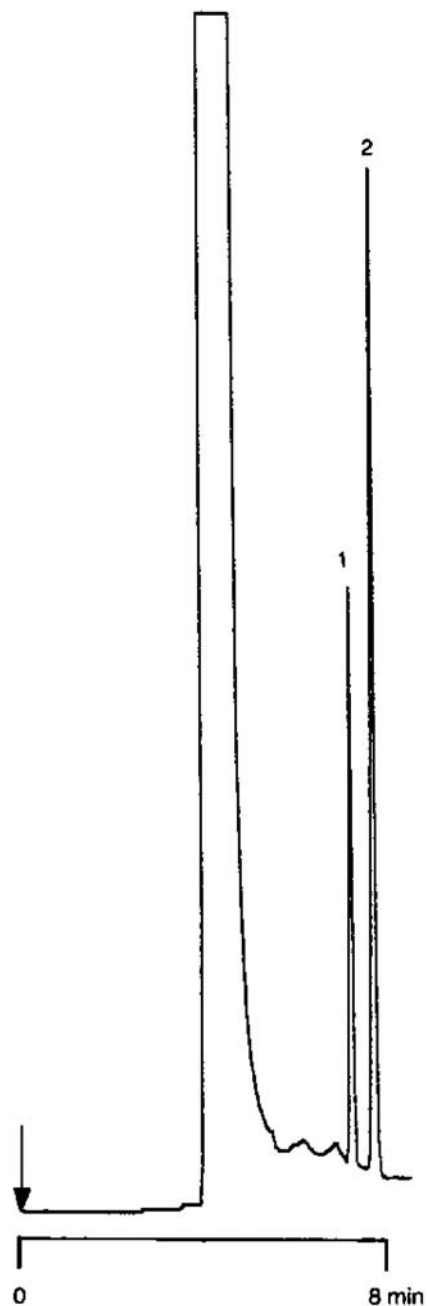
Courtesy : W. Huisman, M. G. Schuitenmaker,
Laboratorium Apotheek, Ziekenhuis "De Heel",
Postbus 210, 1500 EE Zaandam

Peak identification

1. valproic acid (7.2 min)
2. octanoic acid (I.S.) (7.7 min)
(caprylic acid)

Sample preparation

Add to 0.5 mL serum 10.0 μ L Internal Standard solution (octanoic acid 8 mg/mL methanol) + 100 μ L 10% perchloric acid + 200 μ L carbon tetrachloride. Stir on vortex mixer for 30 s. Centrifuge. Transport carbon tetrachloride layer to clean small tube. Inject 0.5 μ L in GC.



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