

NOTE NO. 20 - June 23 1987

EFFECT OF HUMAN SERUM ON COLUMN EFFICIENCY AND CAPACITY FACTOR

Analytes: Phenobarbital (160 µg/ml), Carbamazepine (60 µg/ml)

Sample matrix: Chromatogram #I: Water (Injecting 10 microliters)

Chromatogram #II: Human serum (Injecting 10 microliters)

Chromatogram #III: Human serum diluted with water (1:4) (Injecting 50 microliters)

Column: 5 micron GFF ISRP, 15 cm x 4.6 mm ID

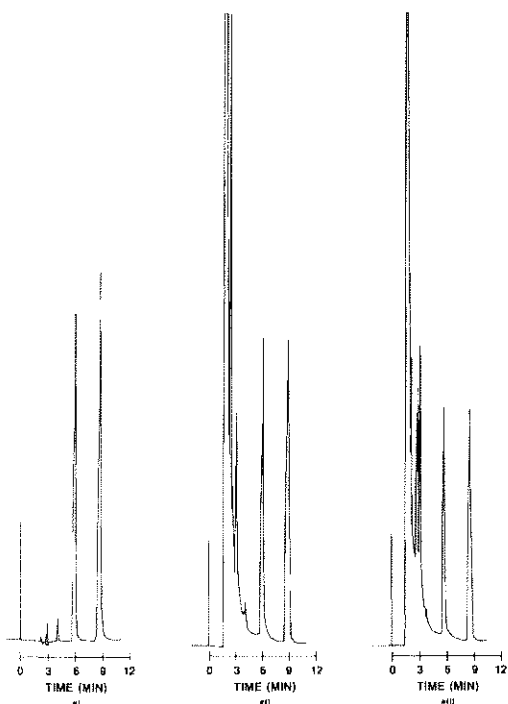
Regis Product Number: 731451

Mobile Phase: 80% 0.1 M KH₂PO₄ (pH) 6.8), 20% Acetonitrile (HPLC grade reagents)

Results:

Chromatogram #	I	II	III
Efficiency (plates/meter)	35,800	34,200	34,400
Capacity factor	4.30	4.32	4.29

Conclusion: Varying the sample matrix from serum to 1/4 serum/water to water has little effect on either column efficiency or capacity factor.



Detection: 254 nm, 0.2 AUFS

Flow Rate: 0.6 ml/min

Note: Sample filtered through 0.2 µm membrane prior to direct injection

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