Waters
Lab Highlights
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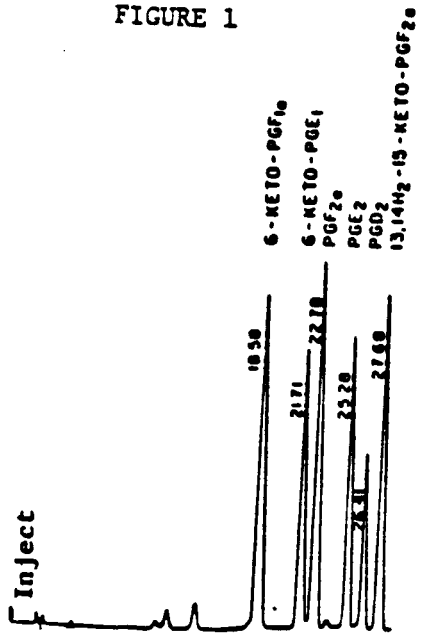
PANACYL BROMIDE REAGENT FOR ENHANCING LC OF CARBOXYLIC ACIDS -- NOW AVAILABLE FOR FIELD EVALUATION

Lab Highlight 0102 (1) summarized a paper by Watkins and Petersen (2) describing the use of panacyl bromide [p-(9-anthroyloxy) phenacyl bromide] reagent to prepare fluorescent derivatives of prostaglandins for analysis at physiological levels. Figure 1 (1) shows a chromatogram of 6 derivatized prostaglandins. The limit of detection for derivatized prostaglandins by fluorescence is on the order of 60 picograms. Although developed specifically for prostaglandins, panacyl bromide may be used to enhance the detection of any carboxylic acid. Additional methods development may be required in this case.

Although use of this reagent has been reported in the literature (3), the reagent is not commercially available, thus limiting its use. The Applications Development Group now has a limited supply of the reagent. Trial amounts of the reagent are available for evaluation by interested parties. Persons who wish to evaluate the reagent should contact Craig Dorschel at Extension 2278 in Milford for further details.

FOR RESEARCH USE ONLY

FIGURE 1



HPLC of 6 prostaglandin standards on µBONDAPAK™ Fatty Acid Column.

Conditions are:

Mobile Phase: A = 0.1% Acetic Acid
B = Acetonitrile

56% B to 65% B; Curve 6 (linear) for 15 mins; then held at final conditions for 15 mins.

Flow Rate: 1.2 ml/min

Detection: 254 nm

1. J. Krol, Waters Lab Highlight #102, February, 1983.
2. W. D. Watkins and M. B. Petersen, Anal. Biochem., 125, (1982) 30-40.
3. J. W. Cox and R. H. Pullen, Anal. Chem., 56 (1984) 1866-1870.

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