

Gas Chromatographic Determination of Diacetylmorphine with Mass Spectrometric Detection

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Abstract

The possibility of determining diacetylmorphine traces in various matrices by gas chromatography with mass spectrometric detection is demonstrated. Diacetylmorphine can be reliably determined by gas chromatography-mass spectrometry in the range 0.02-7.5 µg/mL. A procedure is developed for the quantitative determination of diacetylmorphine and its concomitants, including acetylated opioid derivatives, in forensic samples. The detection limit for diacetylmorphine without preconcentration is 0.01 µg/mL. The detection limit in the selective-ion monitoring mode with preconcentration is 1×10^{-4} µg/mL.

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