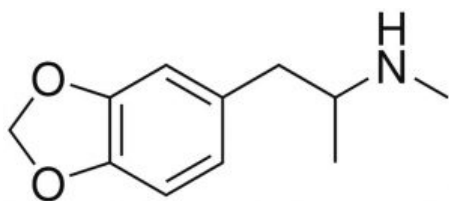
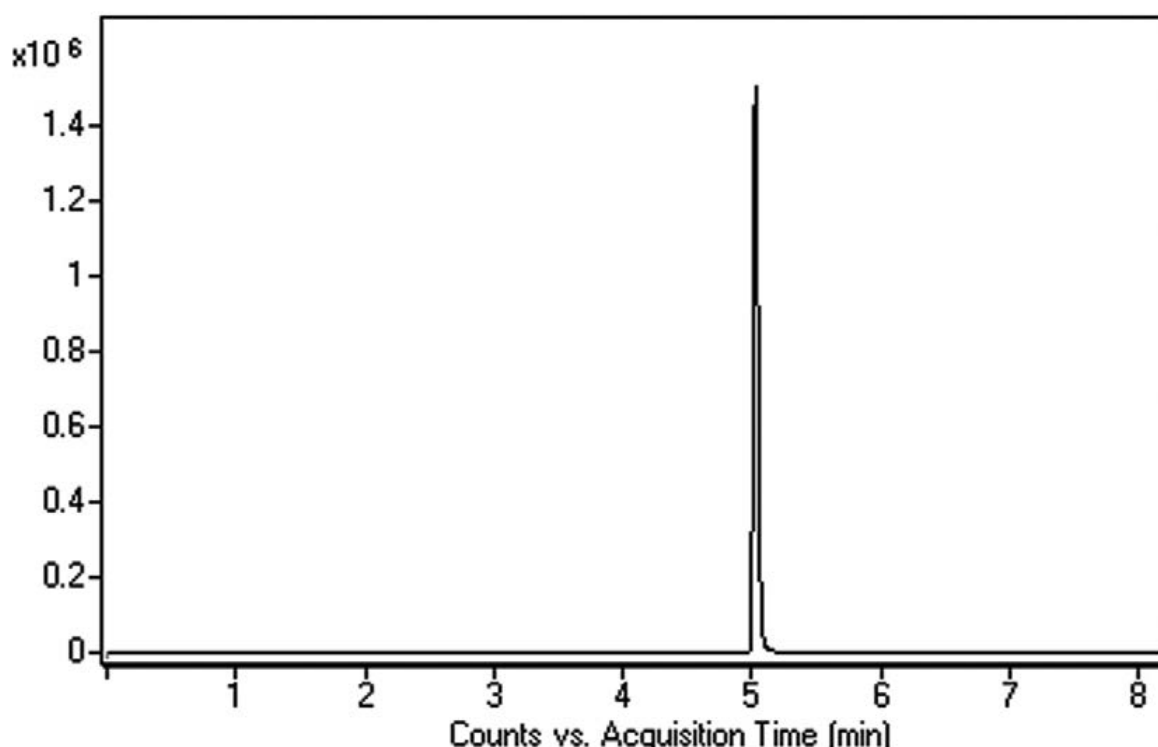


## Analysis of MDMA in Plasma Samples with LCMS – AppNote

### Methylenedioxymethamphetamine Analyzed with MS

Click [HERE](#) for Column Ordering Information.

Under the described conditions, MDMA was retained and eluted as a Symmetrical Peak. The Sensitivity of the Method is very good and comparable to that reported with GCMS Detection [1]. Matrix effects were of minor extent and reproducible and hence should not compromise Quantification. The Method can be used for Forensic Research and Clinical Analysis.



Peak:

(±)-3,4-Methylenedioxymethamphetamine,  $m/z$  194.1176 [M+H]<sup>+</sup>

### Method Conditions

**Column:** Cogent Phenyl Hydride™, 4 $\mu$ m, 100Å

**Catalog No.:** 69020-05P-2

**Dimensions:** 2.1 x 50mm

**Mobile Phase:**

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

**Gradient:**

Time (minutes)	%B
0	10
1	10
6	90
7	10

**Post Time:** 3 minutes

**Flow rate:** 0.4mL / minute

**Injection vol.:** 1µL

**Sample Preparation:** 50 µl of Acetonitrile was mixed with 50µl of plasma for protein precipitation. The samples were centrifuged (*16000×g for 15 minutes*), and the supernatant was filtered through a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.) and transferred to autosampler vials for injection.

**Detection:** ESI - POS - Agilent 6210 MSD TOF Mass Spectrometer

**t<sub>0</sub>:** 0.9 minutes

*Note: The Amphetamine derivative 3,4-methylenedioxymethamphetamine (MDMA), known also as Molly or Ecstasy, is often used or abused as a recreational drug. Because of a reported high inter-individual difference of its toxicity, sensitive analytical methods are needed. A urine test is a standard method to investigate drug abuse but the method has a very low diagnostic sensitivity and makes testing in plasma much more suitable.*

*Reference:*

[1]. R. Kikura, Y. Nakahara, T. Mieczkowski, F. Tagliaro, *Forensic Sci. Int.* 84 (1997) 165-177.



**Attachment**

**No 263 Analysis of MDMA in Plasma Samples with LCMS pdf** 0.2 Mb [Download File](#)

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