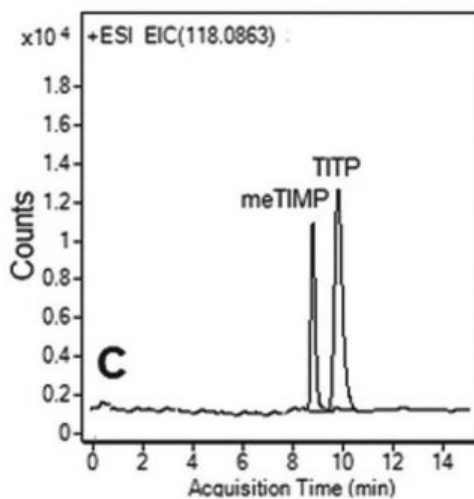
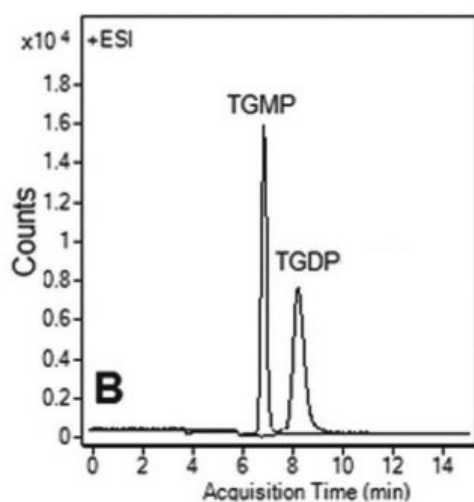
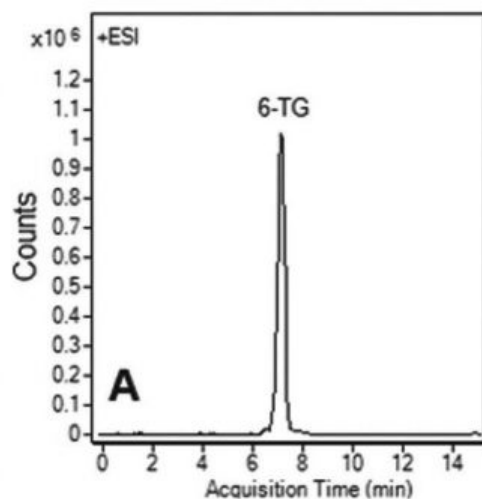


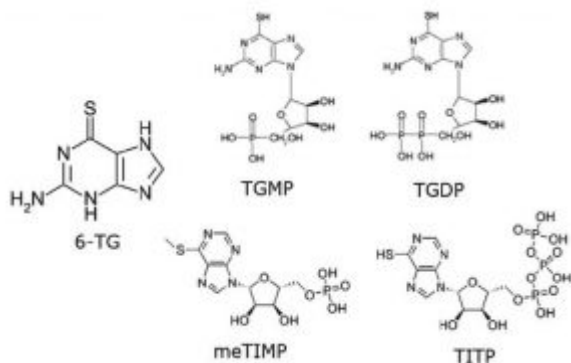
## Analysis of Thiopurines - AppNote

### Separation using LCMS Gradient Method

The Cogent Diamond Hydride Column with gradient elution was used for analysis of Thiopurines. *Figure A* shows the Peak of 6-TG, which also can be analyzed using Isocratic conditions. Good retention and symmetrical peak shape were obtained under the analysis conditions.

*Figure B* represents two separated Thiopurines (Mono and Di- Phosphate forms). *Figure C* shows two Inosine compounds, one with an additional Methyl group, being separated.





## Peaks:

A: Thioguanine (6-TG) at  $m/z = 168.0338$  [M+H]<sup>+</sup>

B: 6-Thioguanosine -5'-Phosphate (TGMP) at  $m/z = 380.3$ , 6-Thioguanosine -5'-Diphosphate (TGDP) at  $m/z = 460.3$

C: 6-Methyl-Thioinosine-5'-Monophosphate (meTIMP) at  $m/z = 379.3$  and 6-Thioinosine-5'-Triphosphate (TITP) at  $m/z = 525$

## Method Conditions

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

**Catalog No.:** 70000-15P-2

**Dimensions:** 2.1 x 150mm

### Mobile Phase:

A: DI Water / 50% Methanol / 0.1% Formic Acid (v/v)

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

### Gradient:

Time (minutes)	%B
0	100
12	30
14	30
15	0
19	0
20	100

**Post Time:** 2 minutes

**Flow rate:** 0.4 mL/minute

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

**Injection vol.:** 1 $\mu$ L

**Sample Preparation:** 0.4 mg/mL solutions in DI Water. For MS analysis, samples were diluted 1:100 into 50% Acetonitrile / 50% DI Water mixture. Before injection, samples were filtered through a 0.45 $\mu$ m Nylon Syringe Filter (MicroSolv Tech Corp.).



**Attachment**

**No 322 Analysis of Thiopurines pdf** 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 07-22-2024