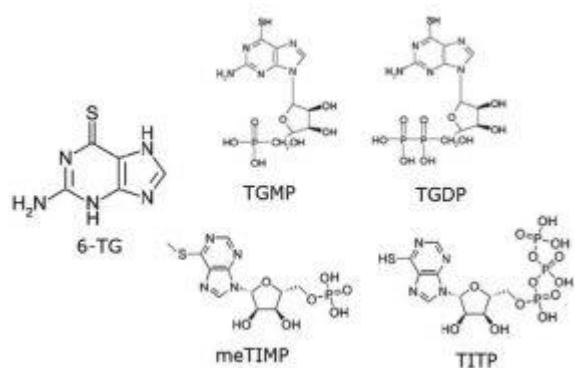
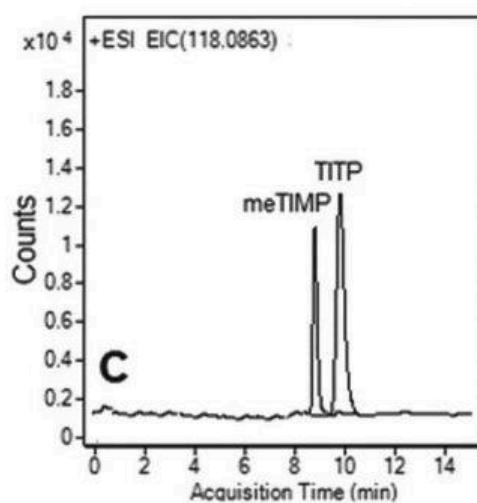
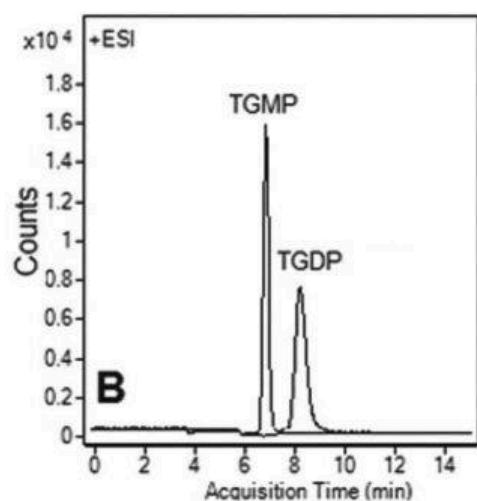
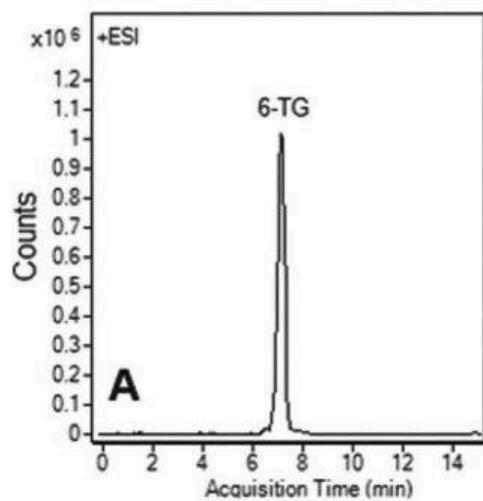


Thiopurines Analysis by LCMS - AppNote

S eparation 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]⁺

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 μ m, 100 \AA

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 μ 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 μ m Nylon Syringe Filter (MICROSOLV Tech Corp.).



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

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