

**RESULTS AND DISCUSSION**

The product ion spectra for CAP-d0 and CAP-d5 (IS) are shown in Figure 1. The transition 320.9>151.9 is used for quantification and the transition 320.9>193.9 is for conformation using the ion ratio between the two transitions. The three transitions for a blank milk sample are shown in the chromatograms in Figure 4 showing the characteristic for the blank standard (0.01 ppb) in Figure 5 showing the signal in sample (0.01 ppb) and the injection of 1.0 ppb. The use of a deuterated internal standard is very important.

The ion ratio between the two product ions is used for confirmation showing good agreement with the expected ratio. The use of a deuterated internal standard is very important. Comparison of the CAP analyses in incurred milk samples with a commercial lab shows good agreement.

The method gives an estimated LOQ of 0.001 ppb which is more than sufficient. The use of a deuterated internal standard is very important.

**CONCLUSIONS**

- A simple selection method for CAP in milk is presented.
- The use of a deuterated internal standard is very important.
- The method is very selective showing a tolerance in blank, spiked standards and incurred samples.
- The ion ratio between the two product ions is used for confirmation showing good agreement with the expected value.
- Comparison of the CAP analyses in incurred milk samples with a commercial lab shows good agreement.

**MASS SPECTROMETRY**

- *Chromatone™* Waters/Millimoles/Quadrupole M/S
- *LC/MS CONDITIONS*
  - Column: Waters Xterra MS C18 5 μm, 2 mm, 3 μm
  - Mobile Phase: A: Water B: Acetonitrile
  - Gradient: 
    - Time % A % B Curve: Flow rate (ml/min)
    - 0.00: 0% 100% 0.45
    - 0.00: 95% 5% 1.00
    - 3.00: 99% 1% 0.40
    - 4.00: 3% 97% 0.30
    - 10.00: 3% 97% 0.30
  - Injection Volume: 10 µl
  - Temperature: 120°C
  - Source Temperature: 120°C
  - RF Lens 1: 0.67
  - RF Lens 2: 0.45
  - Entrance: -2
  - Exit: 0
  - Capillary: 1.00 kV
  - Negative electrospray
  - Resolution: 12.5
  - Entrance: 13.0
  - Exit: 13.0
  - Mass: 1.22
  - Multipplier: 640 V
  - Collision Cell Pressure: 0.17 x 10^6

**MAN TRANSITIONS MONITORED**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Transition</th>
<th>Retention Time (min)</th>
<th>Quantification (ppb)</th>
<th>Confirmation (ppb)</th>
<th>COF average (ppb)</th>
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<tbody>
<tr>
<td>CAP-d0</td>
<td>320.9&gt;151.9</td>
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**RESULTS**

- Comparison of the CAP analyses in incurred milk samples with a commercial lab shows good agreement.

**REFERENCES**


**Table 1:** Results from milk sample analysis

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<th>Type</th>
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**Figure 1:** Product ion spectra of CAP and CAP-d5.

**Figure 2:** Blank milk matrix.

**Figure 3:** Comparison of the CAP analyses in incurred milk samples with a commercial lab shows good agreement.

**Figure 4:** Calibration curve of CAP.

**Figure 5:** CAP standard 1 pg/µl.

**Figure 6:** Chromatogram from incurred milk sample.