

APPENDIX – ION CHROMATOGRAPHY (IC)

- All Foresite ion chromatography (IC) testing is performed using a Dionex ICS 3000 system with Chromeleon software.
- Reference control and blank tests are performed before the start of testing and controls are run after every 10 test samples.
The system is calibrated using NIST-traceable standards (a six-point calibration is recommended).
- A 1.5mL sample of each extracted solution is analyzed using a sodium bicarbonate and sodium carbonate eluent.



Sample Extraction Techniques

Bag Extraction

1. Each test sample is placed into a clean KAPAK™ brand, or equivalent, heat-sealable, polyester film bag.
2. A mixture of isopropanol (75% or 90% by volume) and de-ionized water is introduced into the bag, immersing the test sample. NOTE: The heat-sealed bag includes an opening for ventilation.
3. The bag is inserted into an 80°C water bath for one hour; after which, the bag is removed from the water bath and the test sample is removed from the bag. The test sample is placed on a clean, holding rack for air-drying at room temperature.
4. The solution, from the bag, is transferred to a test vial and placed into an auto-sampler, which injects the solution into the IC for analysis.

C3 Localized Extraction

1. A fresh C3 test cell is used for each selected, extraction site.
2. Each extraction runs for 3 minutes, collecting 2.5ml of test sample solution.
3. The solution is transferred to a test vial and placed into an auto-sampler, which injects the solution into the IC for analysis.

Sample Ion Chromatograph

