

Efficient, robust analyses through capillary electrophoresis.

Anion and Cation Analysis Kits

Capillary Electrophoresis

Genomics

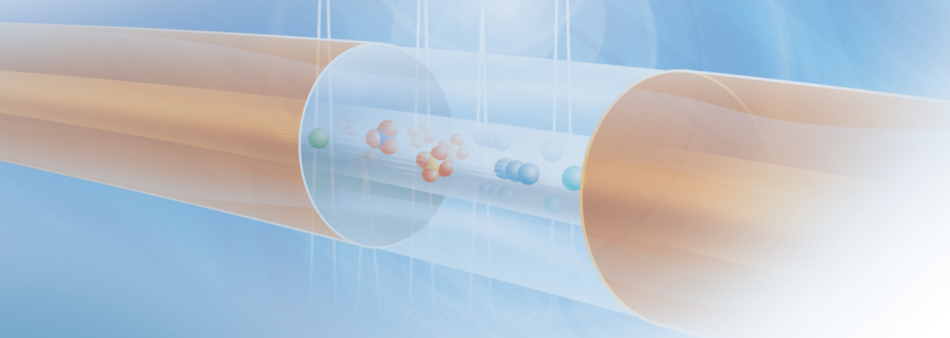
Cell Analysis

Centrifugation

Lab Tools

Lab Automation

Particle
Characterization



When capillary electrophoresis (CE) was first introduced, it was seen as a revolutionary technique. Now, it is fulfilling a role as a well-established technique in analytical laboratories worldwide. CE offers highly efficient separations, short analysis times, and minimal solvent and reagent consumption, when compared with other separation techniques. In fact, CE should be considered first when dealing with highly polar, charged or chiral analytes.

Anions and cations (eg. organic acids and aliphatic amines) are charged polar species that lend themselves well to the CE format. The most robust ion analysis CE methods use bare fused-silica capillaries with a dynamic coating technology to modulate the electro-osmotic flow. Since many small molecules do not absorb UV light, the primary mode of detection is indirect, in which a UV-absorbing chromophore is added to the background electrolyte, the displacement of which provides the basis for detection.

Whether you apply capillary electrophoresis to counter-ion, beverage or industrial applications, you will find that CE with our ion analysis kits provides robust analyses even when handling diverse sample matrices. Only a small sample amount is needed and generally little sample preparation is required. Separations are fast and efficient.

Typical advantages of our ion kits include routine detection of more ions, shorter run times, and less sample preparation time prior to each analysis. These kits are generic in nature, resulting in less method development time, which improves the economy of ion application solutions.

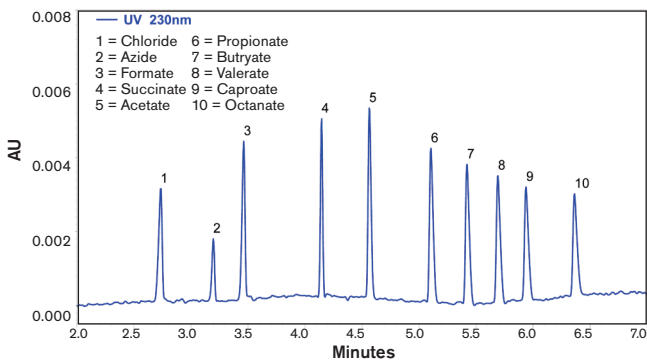
In the discovery phase of pharmaceutical development, one of the most important pieces of data is the correct assignment of molecular mass to the compound to be tested. The formula weight of most drugs cannot be accurately determined without first quantifying the drug counter-ion. Basic drugs may have an inorganic salt or organic acid as counter-ions, whereas acidic drugs may have a metal cation. Regulatory agencies like the U.S. Food and Drug Administration (FDA) and European Medicines Agency (EMA) require that the active and inactive ingredients of pharmaceutical products be tested for identity, strength, quality and purity. Hence, counter-ion analysis is an important part of the purity determination of a drug.

Our kits allow the analysis of compounds over a wide range of polarities, and compound libraries can be processed for counter-ion content in the absence of solubility data.

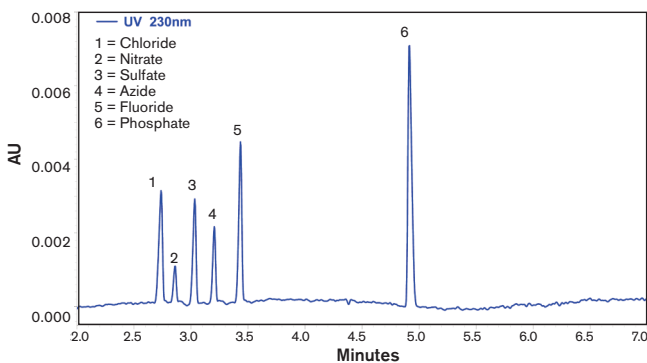
Our Anion and Cation Analysis Kits are specifically formulated for P/ACE™ MDQ CE systems configured with a UV detector.

Ion Analysis for Capillary Electrophoresis

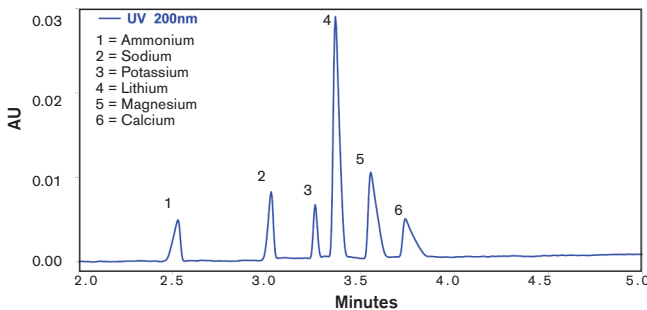
Organic Anions Test Mixture



Inorganic Anions Test Mixture



Cations Test Mixture



Our ion analysis test kits are designed for ion concentrations in the 1-100 ppm range. Sensitivities below that are possible under special conditions only. Typically a %CV of 1% or less is expected for migration time.

For additional information, also visit:
<http://www.CELeader.com>

The Beckman Coulter Ion Analysis Kits contain the supplies necessary for separation and quantitation of cations, using the P/ACE MDQ Capillary Electrophoresis system. Each kit yields approximately 500 tests.

Anion Analysis Kit (A53537)
 Analysis of inorganic ions and organic acids.



Component	Quantity
Anion Coating	1
Anion Separation Buffer	1
Conditioner – Na	1
Anion Acid Rinse	1
Anion Internal Standard	1
Anion Organic Test Mix	1
Anion Inorganic Test Mix	1
Capillary, 50 cm, 75 im I.D.	3 pieces
Rinse Solution	1

Cation Analysis Kit (A53540)
 Analysis of small inorganic cations and aliphatic amines.



Component	Quantity
Cation Coating A	1
Cation Coating B	1
Cation Separation Buffer	1
Conditioner – Na	1
Conditioner – Li	1
Cation Internal Standard	1
Cation Test Mix	1
Capillary, 50 cm, 75 im I.D.	3 pieces
Rinse Solution	2
Ion Analysis Insert	1



A P/ACE MDQ CE system with liquid capillary cooling and UV detection is recommended for ion analysis with our dynamic coating kits. The P/ACE MDQ CE system comes with a variety of sampling formats, including a 96-well plate, which allows this system to be compatible with many forms of laboratory automation. The P/ACE MDQ can also be used for chiral analysis, basic drugs, pKa determination, nucleic acid purity analysis and more.

For research purposes only; not for use in diagnostic procedures.



Simplify • Automate • Innovate

Australia, Gladesville (61) 2 9844 6000 Canada, Mississauga (1) 905 819 1234 China, Beijing (86) 10 6515 6028
 Czech Republic, Prague (420) 272 01 73 32 Eastern Europe, Middle East, North Africa, South West Asia: Switzerland, Nyon (41) 22 365 3707
 France, Villepinte (33) 1 49 90 90 00 Germany, Krefeld (49) 2151 33 35 Hong Kong (852) 2814 7431 India, Mumbai (91) 22 3080 5101
 Italy, Cassina de' Pecchi, Milan (39) 02 953921 Japan, Tokyo (81) 3 5530 8500 Korea, Seoul (82) 2 404 2146 Latin America (1) (305) 380 4709
 Mexico, Mexico City (001) 52 55 9183 2800 Netherlands, Mijdrecht (31) 297 230630 Puerto Rico (787) 747 3335 Singapore (65) 6339 3633
 South Africa/Sub-Saharan Africa, Johannesburg (27) 11 564 3203 Spain, Madrid (34) 91 3836080 Sweden, Bromma (46) 8 564 85 900
 Switzerland, Nyon (41) 0800 850 810 Taiwan, Taipei (886) 2 2378 3456 Turkey, Istanbul (90) 216 570 17 17 UK, High Wycombe (44) 01494 441181
 USA, Brea, CA (1) 800 352 3433, (1) 714 993 5321

B2008-8594-PO-3K

www.beckmancoulter.com

© 2008 Beckman Coulter, Inc.

DIAG-PRINTED IN U.S.A.