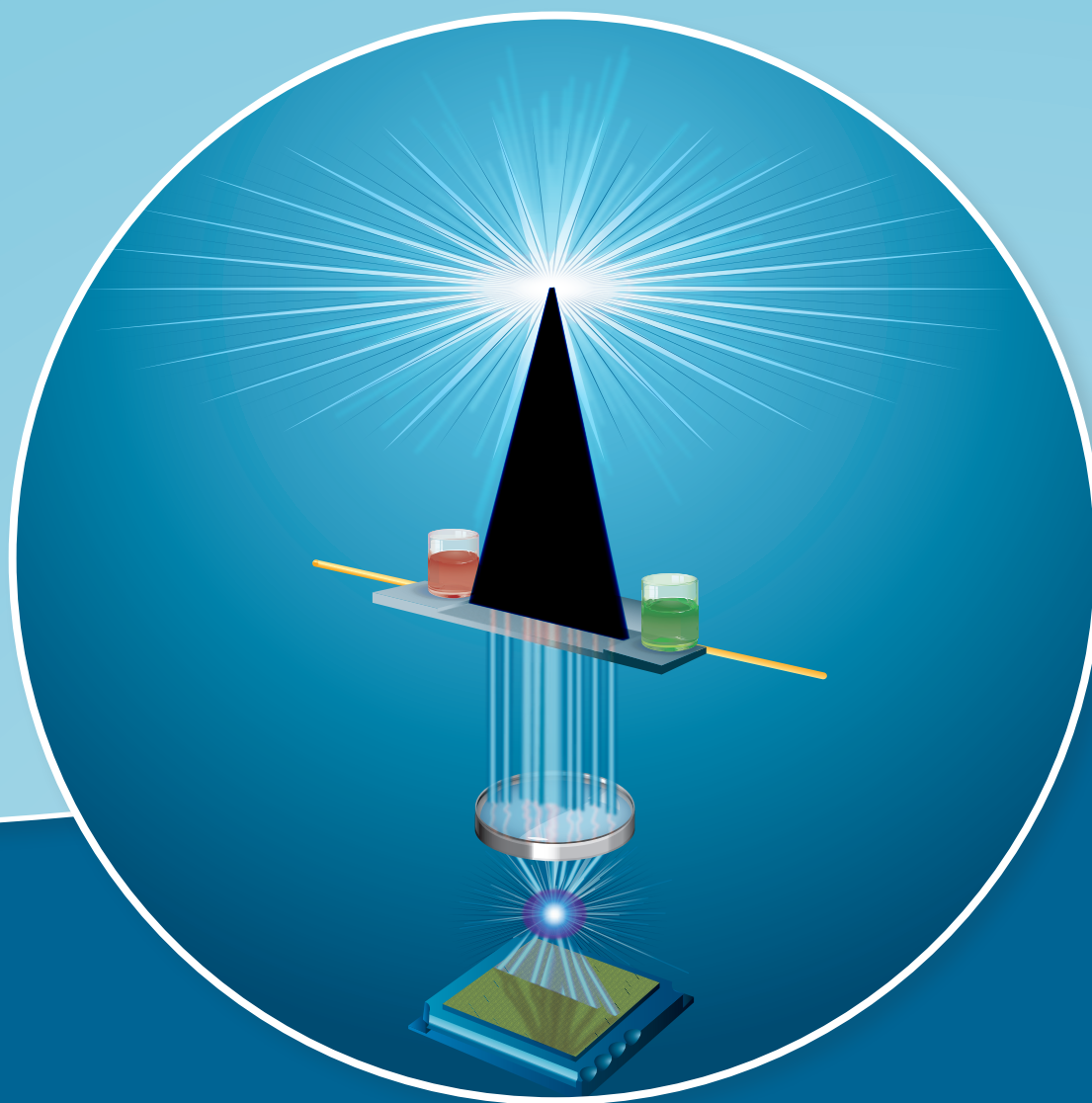


iCE280 IEF Analyzer

SIMPLIFIED CHARGE-BASED ANALYSIS OF PROTEINS



- Quantitative
- Reproducible
- Rapid
- Automated
- Superior Resolution



**CONVERGENT
BIOSCIENCE**

A ProteinSimple Company

iCE280 IEF Analyzer

Characterization and analysis of charge heterogeneity is required for all biopharmaceutical products throughout all phases of development. Traditional charged-based separation methods are labor intensive, complex, and product specific. The iCE280 simplifies method development while providing superior resolution and reproducibility. Generic methods for multiple products and rapid analysis time improve lab efficiency and reduce product development costs.

Analyze a Wide Variety of Proteins

- Monoclonal antibodies and antibody conjugates
- High molecular weight proteins
- Proteins with extreme pI values
- Glycosylated proteins that require high resolution separation and quantitation of charged variants
- Proteins with poor solubility

Monitor From Preclinical to Commercialization

Product Processing

- Screen cell lines
- Optimize purification conditions

Formulation Development

- Evaluate formulations
- Monitor stressed samples

Quality Control

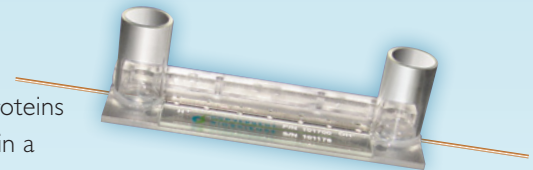
- Lot release
- Long term stability



iCE280 Technology

Capillary isoelectric focusing is a powerful technique for the quantitative analysis of proteins separated by isoelectric point. The iCE280 performs free solution isoelectric focusing in a capillary column and detects focused protein zones using a whole column UV absorption detector. This unique technology incorporates the resolution of traditional gel IEF with the advantages of quantitation and automation found in column-based separation while eliminating the need for a mobilization step.

Focusing begins when voltage is applied to a 50-mm transparent capillary loaded with sample and ampholytes. A CCD camera takes a UV light absorption image of the whole capillary column every 30 seconds. A separation pattern results and is analyzed.

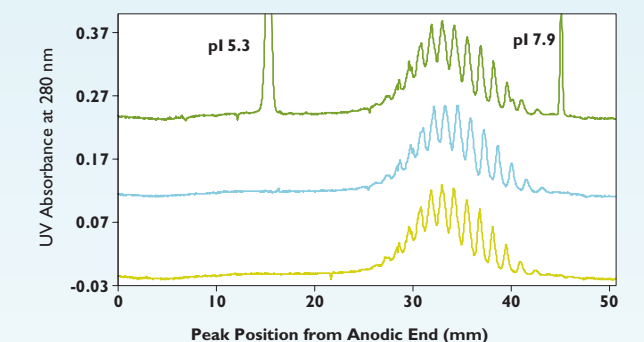


The iCE280 Advantage

The iCE280 combines the separation fidelity of gel-based IEF with the automation and quantitation of capillary column sample injection and detection. This combination provides a robust system that allows rapid method development and use of generic methods.

- Excellent resolution and reproducibility to facilitate stability studies and product identification assays
- Method development reduced from months to hours — glycosylated protein methods can be developed in as little as 4 hours, monoclonal antibody methods in as little as 1 hour
- Rapid sample analysis 3 to 10 times faster than traditional cIEF and ion exchange chromatography

Superior Results



iCE280 high-resolution separation of a highly glycosylated protein.

Specifications and Ordering Information

iCE280 System Specifications

Separation Technique	Free solution whole column detection capillary isoelectric focusing
Capillary	Fluorocarbon coated capillary
Capillary Dimensions	5 cm X 100 µm ID
Detection	Whole column light adsorption at 280 nm
Detection Linear Range	> 100
Focusing Voltage	100 to 600 V/cm
Dimensions	60.5 cm H x 28.25 cm W x 31 cm D (23 ³ / ₄ " H x 11 ¹ / ₈ " W x 12 ¹ / ₄ " D) <i>Note: when used with the PrinCE MicroInjector the iCE280 sits on a 14.6 cm (6³/₈") H stand</i>
Weight	20 kg (45 lbs)
Power Requirements	115/220 V AC ± 10%, 50–60 Hz ± 0.5%
Operating Temperature	18–23 °C
Operating Humidity	≤ 85% non-condensing
Automation	PrinCE MicroInjector or Alcott 719AL Autosampler
Sample Cooling	4–40 °C

Autosampler Specifications

The iCE280 provides maximum flexibility for sample throughput by pairing it with one of two proven autosamplers:

PrinCE MicroInjector

The PrinCE Microinjector combines ease of use and minimal maintenance with good sample throughput which makes this an ideal option for multi-user and routine testing environments.

Alcott Autosampler

The Alcott 719AL Autosampler utilizes vials or 96-well plates to provide extended throughput capabilities.

PrinCE MicroInjector

Throughput	4–5 injections per hour
Tray Capacity	40 vials (11 mm)
Maximum Injections	160 in up to 60 hours
Typical Sample Volume	10 µL
Sample Cooling	8–40 °C
Power Requirements	115/230 V AC ± 10%, 50–60 Hz ± 0.5%
Dimensions	46 cm H x 34.5 cm W x 49 cm D, (18" H x 13 ⁵ / ₈ " W x 19 ¹ / ₂ " D)
Weight	28 kg (62 lbs)

Alcott Autosampler

Throughput	7 injections per hour
Tray Capacity	50 vials (15 mm) or 96-well microtiter plate
Maximum Injections	200 in up to 60 hours
Typical Sample Volume	40 µL
Sample Cooling	4–40 °C
Power Requirements	115/230 V AC ± 10%, 50–60 Hz ± 0.5%
Dimensions	33.5 cm H x 32.5 cm W x 55 cm D (13 ¹ / ₈ " H x 12 ³ / ₄ " W x 21 ¹ / ₂ " D)
Weight	16 kg (35 lbs)



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98-1000-00 Rev C