LabChip Microfluidics



Key Benefits:

- Flexible high or medium throughput platform options
- Rapid assay results to optimize Quality of Design experiments
- Simple touch screen interface
- Wide range of data output

LabChip GXII Touch Protein Assay Portfolio

The LabChip® GXII Touch Capillary Electrophoresis System uses a single sipper microfluidic chip to rapidly characterize protein samples from 24-, 96- or 384-well plates. The microfluidics chip technology automatically stains, destains, electrophoretically separates and analyzes the protein samples. After the Labchip instrument optics detect the laser-induced fluorescent signal, easy to use system software automatically analyzes the data and provides the user with relative protein concentration, molecular size, and percent purity using ladder and marker calibration standards. Digital data results are immediately available for review or reporting in virtual gel, electropherogram graph or table summary form (Figure 1), which can be further enhanced with TIBCO SpotFire® data visualization.

Choose Protein Express for samples ranging in size from 14 to 200 kDa, Low Molecular Weight for samples from 5 to 80 kDa, Pico for samples with very low concentration, as well as glycan and charge variant analysis.

- Two platforms for greatest efficiency: high throughput (up to 384 samples) or lower throughput (up to 24 samples) provide complete automated analysis of proteins in as few as 40 seconds
- Automated analysis provides significant cost savings relative to the materials and labor required to run manual gels for protein analysis

- Easy to use Digital format facilitates review, export, and archiving of data
- Extended Workflow profile allows chip to be loaded once for support of sample processing anytime within an eight hour window
- Flexible data display options Results shown in your choice of virtual gel, electropherogram graph or tabular formats



Figure 1. Shown is the graphics user interface for the LabChip GXII Touch software. Results can be displayed and exported as virtual gels, electropherograms, or data tables. LabChip software reports relative concentration, size, and percent purity of proteins.



Specifications for LabChip Protein Kits

Assay Kit	Protein Express		Pico Protein		Low Molecular Weight		Glycan Screening	Charge Variant
Assay Script	P100 Assay:	P200 Assay:						
Sizing Range	14 kDa — 100 kDa	14 kDa – 200 kDa	14 kDa –	200 kDa	5 kDa – 80 kDa			
	± 20%		± 20%		± 20%		CV <2.5%	
Sizing Accuracy					± 10 % (CAII, BLG)			
Sizing Resolution	± 10% difference in molecular weight		± 10% difference in molecular weight		14-80 kDa	± 10%		Comparable to IEX and
5					< 14 kDa	± 20%		conventional CZE
	5.0 — 2000 µg/mL		antibodies	50 ng/mL -500 μg/mL (4 logs)	30 - 2000 µg/mL (BLG, CAII in PBS)			
Linear Dynamic Range			other protein	10 ng/mL - 100 μg/mL (4 logs)				
Maximum Total Protein Concentration	10 m	g/mL			10 mg/mL			10 mg/mL
Sensitivity	5 μο	ı/mL	0.1 % of to	otal protein	4 µg/mL C BSA)	CAll (8 µg/mL Assay precision is <4 % for A) in PBS the major glycan peaks		
Quantitation Reproducibility	30 % CV up	to 120 kDa			30 % CV up to 120 kDa CV<10 % for peak ≥2.5 % of total glycan		CV < 5 % for varying concen- tration from 1-3 mg/mL CV< 3% at constant concentration	
Maximum Salt Concentration	1M NaCl at pH 6.5 to 8.5				0.5 M Total Salt			
Chip Primes per Reagent Kit	4		4		4		4	120
Chip Sample Lifetime	400		400		400		400	500
Sample Analysis Time	34 sec	41 sec	41 s	ec*	60 sec		68 sec	90-110 sec

Ordering Information

	LabChip GXII	LabChip GXII Touch HT	LabChip GXII Touch 24
Protein Express LabChip	760499	760499	CLS138950
Protein Express LabChip (Economy 4 pack)	760528	760528	N/A
Protein Express Reagent Kit	CLS960008	CLS960008	CLS960008
Bulk Protein Express Sample Buffer	760518	760518	N/A
Pico Protein Reagent Kit	760498	760498	760498
Bulk Pico Protein Sample Buffer	760414	760414	N/A
High Resolution Protein LabChip	760524	760524	CLS138951
Low Molecular Weight Reagent Kit	760573	760573	760573
Glycan Screening Reagent Kit	760525	760525	760525
Glycan Release & Labeling Kit	760523	760523	760523
DNA 5K/RNA/CZE LabChip	760435	760435	CLS138949
Charge Variant Reagent Kit	CLS760670	CLS760670	CL5760670

PerkinElmer, Inc. 940 Winter Street Waltham, MA 02451 USA P: (800) 762-4000 or (+1) 203-925-4602 www.perkinelmer.com



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