

Agilent Protein Kits for the Agilent 2100 Bioanalyzer System

Speed Up Your Protein Analysis

The Agilent protein kit portfolio provides a fast and flexible way for the assessment of protein concentration, identity, and purity in a wide variety of samples.

Key Features

- Improved data reliability: Pre-packaged reagents and standardized assays yield highly reproducible data
- Faster results: Sizing and quantification of 10 samples in 30 minutes
- Applicable to quality control in regulated environments: 2100 Security Pack, IQ/OQ services and declaration of conformity for consumables enable 21 CFR Part 11 compliance
- Minimal sample consumption: Only 4 to 5 μL of protein sample required per analysis
- No manual staining and destaining steps: All integrated into a single, automated step.
- Clean: Minimal exposure to hazardous materials
- Quick and easy sample comparison: One-click overlay, scaling or zooming features.
- Data display options: Gel-like image, electropherogram, and tabular formats
- Conveniently archive, store and share digital data



Analytical specifications	Protein 80	Protein 230	High Sensitivity Protein 250
Sizing range	5 – 80 kDa	14 – 230 kDa	10 – 250 kDa
Typical resolution	10 %	10 %	10 %
Sensitivity ¹	6 ng/ μL CAII in PBS 15 ng/ μL BSA in PBS 10 ng/ μL CAII in 0.5 M NaCl 30 ng/ μL BSA in 0.5 M NaCl	6 ng/ μL CAII in PBS 15 ng/ μL BSA in PBS 30 ng/ μL BSA in 0.5 M NaCl	1 pg/ μL labeled BSA in water on chip 5 pg/ μL labeled BSA in PBS on chip (Labeling reaction at 1 ng/ μL of total protein)
Sizing precision	3 % CV (CAII, BLG)	3 % CV (BSA, CAII)	3 % CV (BSA)
Sizing accuracy	± 10 % (CAII, BLG)	± 10 % (BSA, CAII)	± 10 % (BSA)
Quantitative precision	20 % CV (CAII, BLG)	20 % CV (BSA, CAII)	20 % CV (BSA)
Quantitative range	60 – 2,000 ng/ μL CAII in PBS	15 – 2,000 ng/ μL CAII in PBS 30 – 2,000 ng/ μL BSA in PBS	typically up to 4 orders of magnitude (0.1-1000 ng/ μL BSA)
Qualitative range	6 – 4,000 ng/ μL CAII and BLG in PBS	6 – 5,000 ng/ μL CAII in PBS 15 – 5,000 ng/ μL BSA in PBS	–
Physical specifications			
Analysis time	30 minutes	25 minutes	30 minutes
Samples per chip	10	10	10
Sample volume required	4 μL	4 μL	5 μL
Kit stability	4 months	4 months	6 months
Kit size	250 samples	250 samples	100 samples

CAII = carbonic anhydrase, BSA = bovine serum albumin, BLG = beta-lactoglobulin

¹Signal-to-noise >3 (single peak)

Ordering information

Order No.	Description
5067-1515	Protein 80 kit
5067-1516	Protein 80 reagents

Order No.	Description
5067-1517	Protein 230 kit
5067-1518	Protein 230 reagents

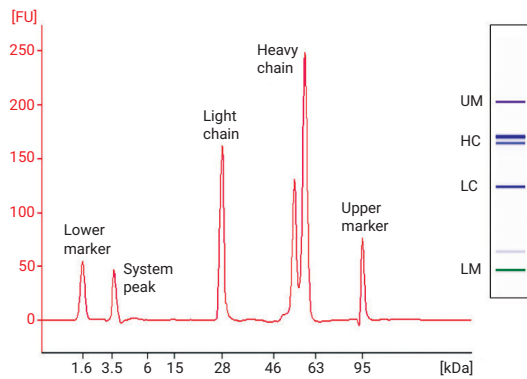
Order No.	Description
5067-1575	High Sensitivity Protein 250 kit
5067-1576	High Sensitivity Protein 250 reagents
5067-1577	High Sensitivity Protein 250 labeling kit
5067-1578	High Sensitivity Protein 250 ladder

Protein 80 Assay

Example: Protein QA/QC

- Monitor protein isolation and purification processes
- Determine protein contaminations
- Analyze proteins under reducing and non-reducing conditions in parallel on one chip

The Protein 80 kit was used for quality control of an IgG antibody under reducing conditions in the presence of DTT. The electropherogram and the gel-like image show three main peaks/bands, the light chain, and the heavy chain with and without glycosylation. No degradation was detected.

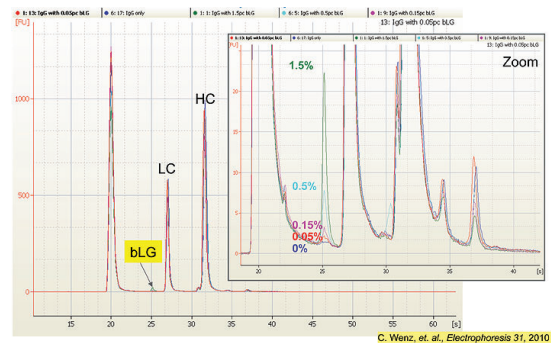


High Sensitivity Protein 250 Assay

Example: Impurity detection

- Determination of protein contaminants

Many applications require the characterization of impurities in protein samples. The electropherograms show monoclonal antibodies spiked with beta-Lactoglobulin (bLG) at differential amounts. The High Sensitivity Protein 250 kit was demonstrated to detect 0.05% of bLG spiked into the antibody sample.



www.agilent.com/genomics/bioanalyzer

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