

High Sensitivity Protein 250 kit

Silver staining sensitivity with the Agilent 2100 bioanalyzer

Sensitivity in the picogram range combined with an extra wide linear dynamic range

The High Sensitivity Protein 250 kit is the first microfluidic assay for protein detection in the low picogram range. It offers 4 orders of magnitude linear dynamic range, allowing quantification of low concentrated impurities next to dominant main peaks in a single run. Therefore, the kit is very well suited to solve typical protein QA/QC questions – in a bioanalyzer-like, fast and reproducible way.

Reasons to switch from silver stain SDS-PAGE to the Agilent 2100 bioanalyzer

- **Improved data reliability** – Pre-packaged reagents and standardized assays yield highly reproducible data.
- **Faster results** – Sizing and quantitation of 10 samples after sample preparation (30 minutes analysis time).
- **Quantitative results** – Relative and absolute quantification within a wide linear range including purity data.
- **No manual staining and destaining step** – All integrated into a single, automated step.
- **Automated** – Separation, detection and analysis are automated and provide user independent and normalized results.



Reasons to switch from CE-LIF to the Agilent 2100 bioanalyzer

- **Faster results** – Sizing and quantification of 10 samples in less than 40 minutes including quality, purity and quantity data
- **Predefined method** – No method development required, less validation efforts
- **Wide dynamic range for quantification** – Robust quantification of minor peaks below 0.1% next to a main product in a single run.
- **Applicable to quality control in regulated environments** – 21 CFR Part 11 compliant Security Pack software, IQ & OQ/PV services for hardware and software, declaration of conformity for consumables.
- **Minimal sample consumption** – Only 5 µL of protein sample required per analysis.

Specifications

Sizing range
Typical sizing resolution
Typical sizing accuracy
Sensitivity LOD (S/N >3)
Linear dynamic range
Quantification reproducibility
Total amount of protein for labeling

Protein 250 (order number 5067-1575)

10-250 kDa
10 % difference in MW
10 % CV (BSA)
1 pg/µL (labeled BSA in water)
Up to 4 orders of magnitude
20 % CV (BSA)
≥1 ng/µL

Physical specifications

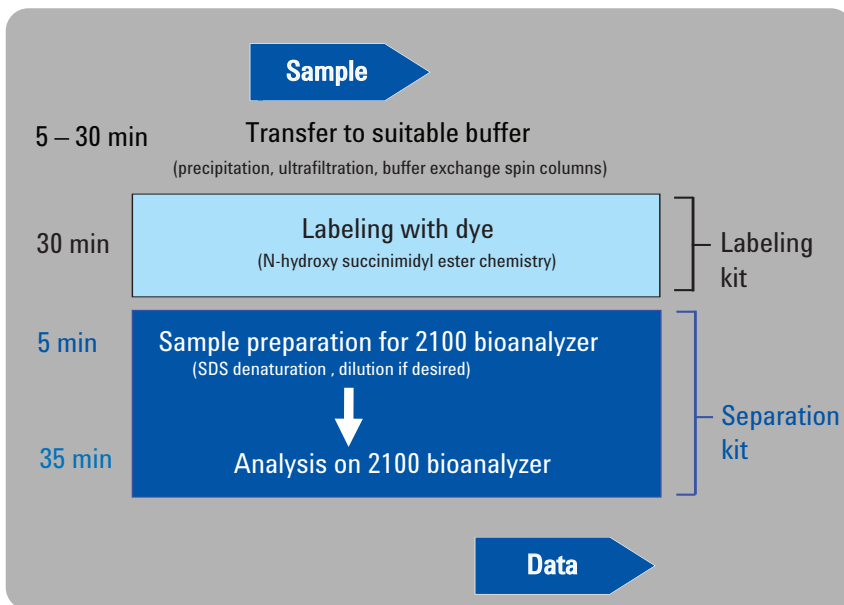
Analysis time
Number of samples
Sample volume
Kit stability

30 minutes
10 samples/chip
5 µL for labeling reaction
6 months



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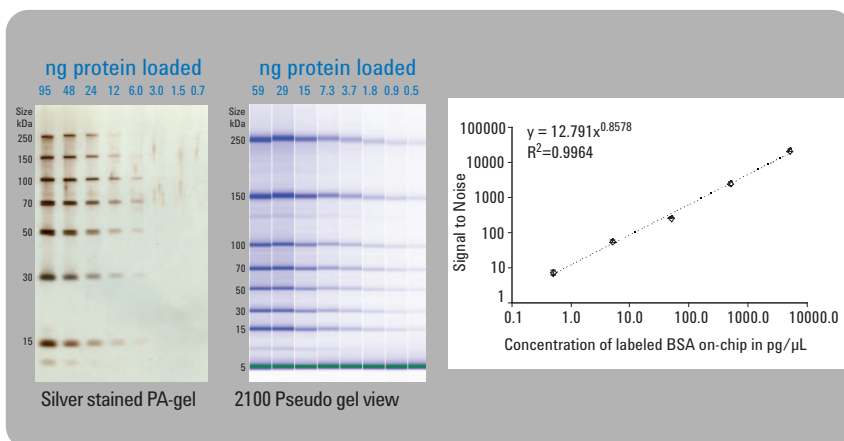
Sensitivity and quantification in a single step



Workflow (including new sample preparation step for covalent protein labeling)

The entire workflow from original sample to digital data is a 3-step process that takes less than 2 hours.

- Sample preparation for labeling reaction (move sample in a low salt buffer within pH range of 8 – 9), based on customer choice
- Sample labeling (using labeling kit as described in Agilent's labeling protocol)
- Chip preparation and analysis run on the Agilent 2100 bioanalyzer (using kit reagents as described in Agilent's Quick Start Guide)



Multiple results in one analysis step

The High Sensitivity Protein 250 kit provides several results within a single analysis step.

- Reproducible qualitative data down to picogram range of proteins
- Linear quantification data up to 4 orders of magnitude
- Fast purity results in a digital and normalized data set

Kits for the Agilent 2100 bioanalyzer are available for the analysis of DNA, RNA, proteins and cells.



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