Agilent
Trusted Answers

Dependable Denaturing Protein Electrophoresis

Agilent ProteoAnalyzer system

Automate Your Denatured Protein Analysis

The Agilent ProteoAnalyzer system streamlines separations of proteins from 10 to 240 kDa, including challenging samples, with automated parallel capillary electrophoresis sodium dodecyl sulfate (CE-SDS). By using discrete capillaries for separations, purified antibodies, secreted proteins, membrane proteins, and crude lysates can be consistently analyzed.

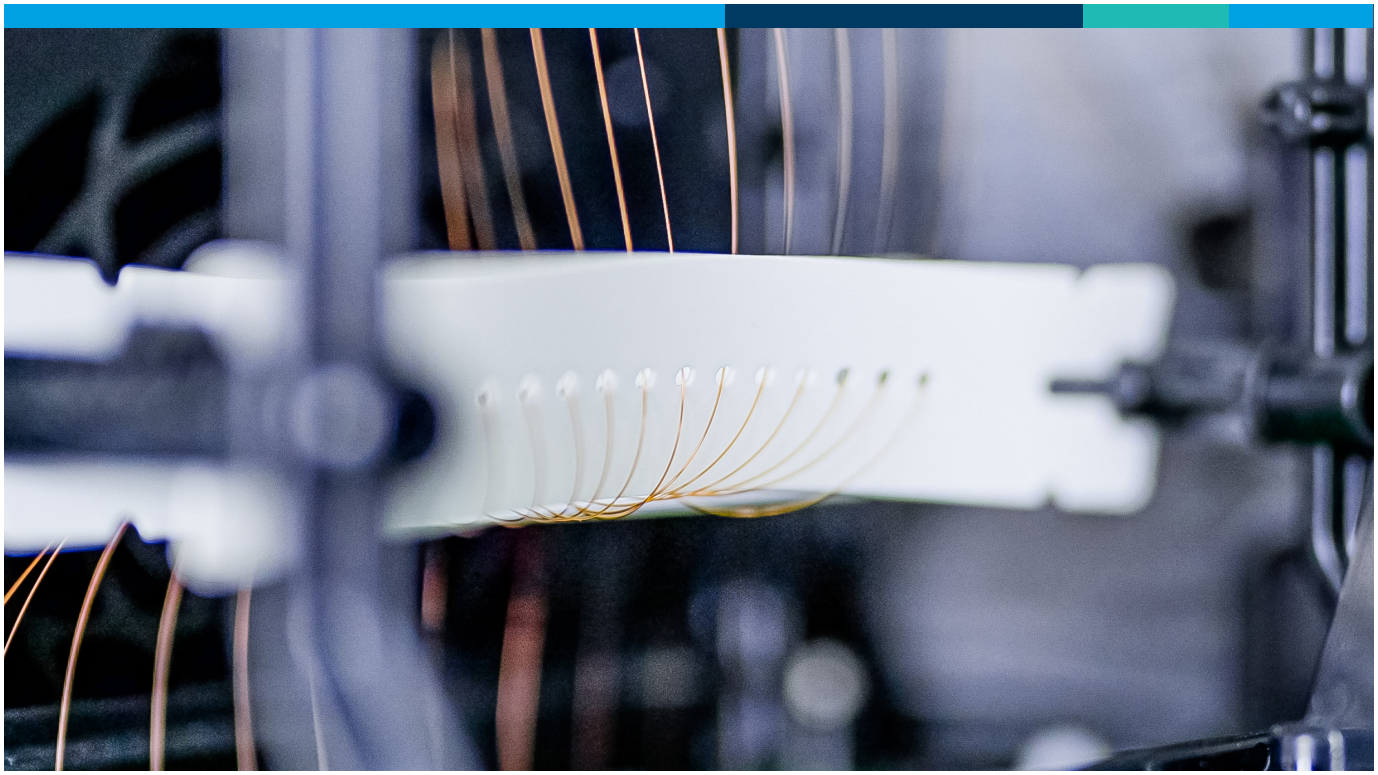
A streamlined workflow quickly labels proteins with a fluorescent tag. Tagged proteins are detected using a sensitive charge-coupled device (CCD) camera that provides a 3-log dynamic range for detection of minute levels of impurities with low levels of background noise. Seamless integration with the Agilent ProSize data analysis software provides unambiguous results, reduces time spent analyzing gels, and allows for simple data archiving. Automate your protein separations with the ProteoAnalyzer.

The Agilent ProteoAnalyzer system bundle includes the instrument, capillary array, software, computer as well as installation and introduction to ensure efficient integration into your laboratory.

Analyze A Variety of Protein Sample Types in A Single Run

The ProteoAnalyzer system separates proteins in discrete capillaries allowing for the analysis of 12 samples in parallel. Between runs the capillaries are automatically cleaned, rejuvenated, and filled with fresh separation gel providing consistent results for a wide variety of protein sample types.

- **Reduced antibodies**
  Quantitate the percent of non-glycosylated heavy chain present during antibody characterization
- **Non-reduced antibodies**
  Evaluate antibody purification for degradation products and other protein impurities
- **Membrane proteins**
  Resolve purified membrane proteins and microsome fractions with ease
- **Secreted proteins**
  Separate proteins purified from cell media
- **Total protein extractions**
  Analyze crude total protein extractions for overexpressed proteins and general quality control
- **Purified proteins**
  Determine the percent purity of protein fractions during purification and on the final product



The capillary array enables parallel analysis of up to 12 samples in 30 minutes. Automatic cleaning and conditioning of the capillaries between runs allows for the analysis of different sample types such as membrane proteins and purified antibodies.

Consistent Results from Run to Run

To deliver consistent run-to-run results, regardless of the proteins analyzed, the ProteoAnalyzer automatically cleans, reconditions, and refills the capillaries between every sample. This enables the system to generate superior data quality, even with challenging samples.

Robust separations across diverse sample types

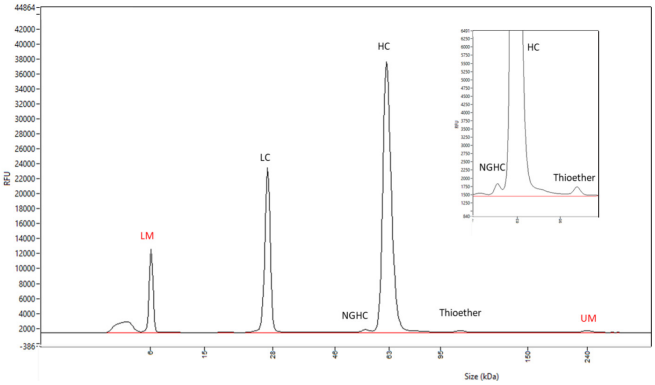


Figure 1. NIST monoclonal antibody analyzed under reduced conditions. The non-glycosylated heavy chain (NGCH) is fully resolved from the glycosylated heavy chain (HC) allowing for accurate quantitation. LM = Lower Marker. UM = Upper Marker.

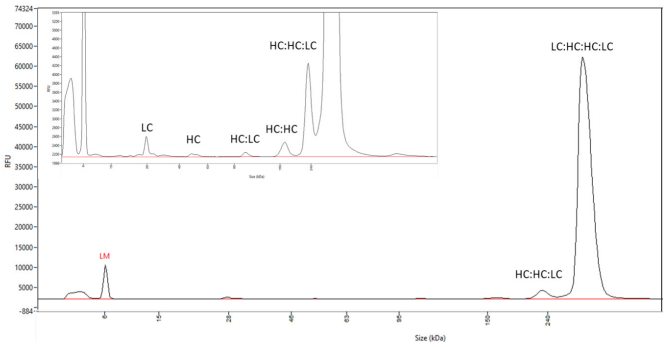


Figure 2. NIST monoclonal antibody analyzed under non-reduced conditions. Different combinations of the light chain (LC) and heavy chain (HC) were detected with overall monomeric purity of 94.3%. LM= Lower Marker.

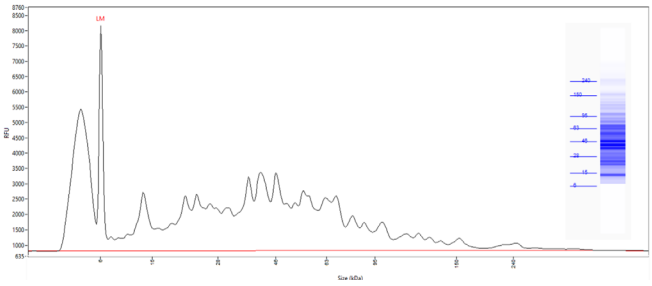


Figure 3. Human liver microsome fraction was analyzed under reduced conditions. LM = Lower Marker.

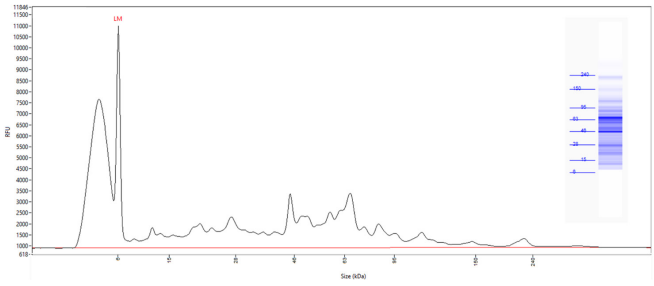
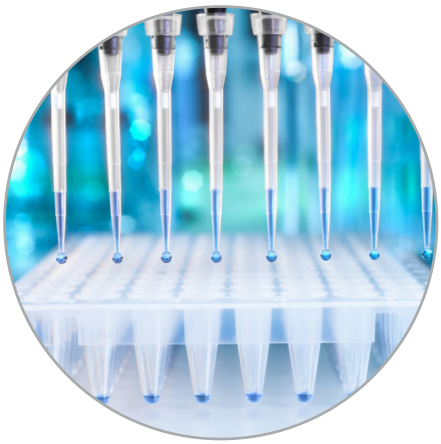


Figure 4. Human liver total lysate was analyzed under reduced conditions. LM = Lower Marker.

Simple Preparation, Intuitive Operation

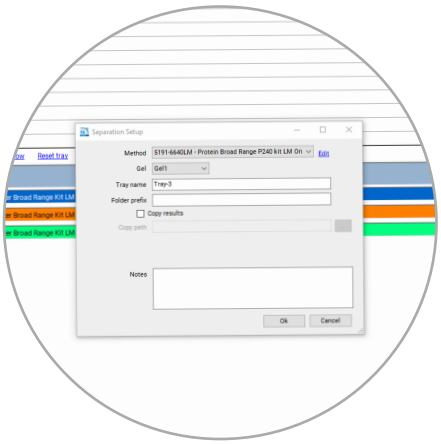
Step 1: Prepare instrument

Load gel and conditioning solution, change inlet buffer, and empty waste drawer/bottle.



Step 2: Prepare samples

Fluorescently label your samples directly in a 96-well plate and put the labeled sample plate on the instrument.

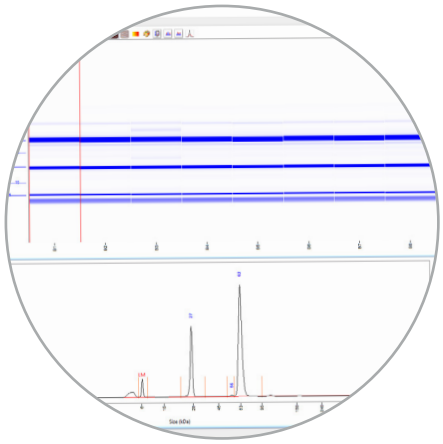


Step 3: Set up software

Select your method from the dropdown menu, enter sample names and any notes for the run.

Step 4: Start runs

Queue multiple runs, split across three sample drawers for user flexibility and walk away analysis.



Step 5: Analyze results

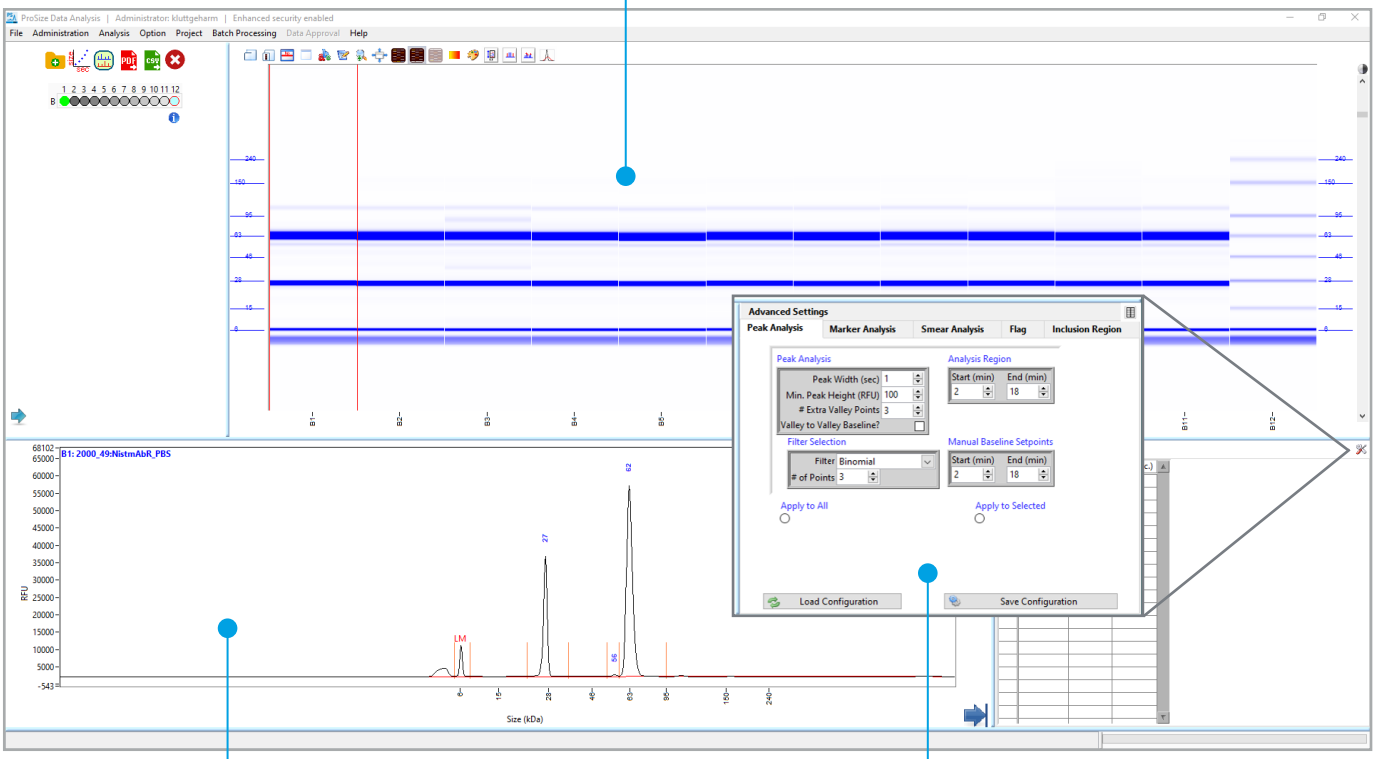
Process separation data with the ProSize data analysis software using the digital gel image, electropherogram, and individual parameters call out.

All-In-One Analysis with Powerful Software

Robust CE-SDS protein separations demand an intuitive software to analyze results. The ProSize data analysis software is a powerful software package that simplifies the identification and analysis of protein separations and offers you three ways to visualize data:

Digital gel image

Data is represented as an interactive digital gel image with tools for basic adjustments.



Electropherogram

Data is represented as an interactive electropherogram with tools for basic adjustments.

Individual parameter

Set specific parameters to customize sample analysis, aid in evaluating challenging samples, and expedite quality control decisions.

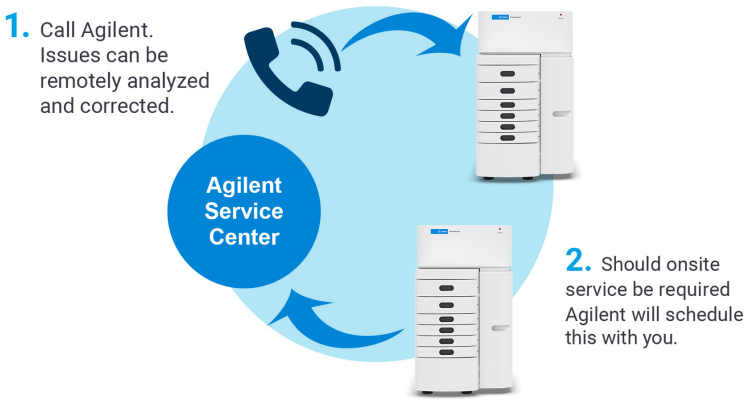
Support Services for the ProteoAnalyzer System

Get peace of mind through comprehensive instrument and assay familiarization

Agilent offers an onsite startup service to familiarize you with the instrument and software, as well as an assay of your choice. You can also choose from additional service options to suit your lab's specific service-level needs.

Additional support services

A one-year standard warranty is included with all ProteoAnalyzer systems. This warranty may be upgraded to CrossLab Silver level and extended to cover up to five years total warranty time. This premium service includes travel, labor, parts, onsite repair, and an annual system preventative maintenance service.



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