

Agilent P200 ScreenTape

Accelerate protein analysis with the Agilent 2200 TapeStation system

Automated protein electrophoresis with scalable throughput

The Agilent 2200 TapeStation system provides automated, fast and reliable RNA, DNA and protein electrophoresis.

Agilent P200 ScreenTape, with the 2200 TapeStation system, facilitates automated protein QC from 10 to 200 kDa. Following automatic loading, separation and imaging, the 2200 TapeStation software sizes protein peaks, calculates product purity and compares different protein profiles. Protein expression and purification methods can now be streamlined with this fast and automated gel electrophoresis system.



Complete solution for protein analysis

- Agilent P200 ScreenTape (5067-5371)
- Agilent P200 Reagents (5067-5372)
- Agilent 2200 TapeStation system (G2964AA)

Key Features

Fast results

Pre-packaged reagents and automation delivers results in less than 1 minute per sample, even for 96 samples.

Easy to use

Simplify your workflow with ready-to-use ScreenTape consumables and automation. No more need to manually load, stain and image SDS-PAGE gels.

Scalable throughput

Load samples in tube strips or 96-well plates allowing for low or high throughput applications at a constant cost per sample due to individual separation channels.

Highest flexibility

There is no need to protein batch samples, as any unused ScreenTape lanes can be used later, making at-line monitoring of protein production a reality.

Zero carryover

In addition to individual loading tips for each sample, the P200 ScreenTape runs each protein sample in a separate lane.

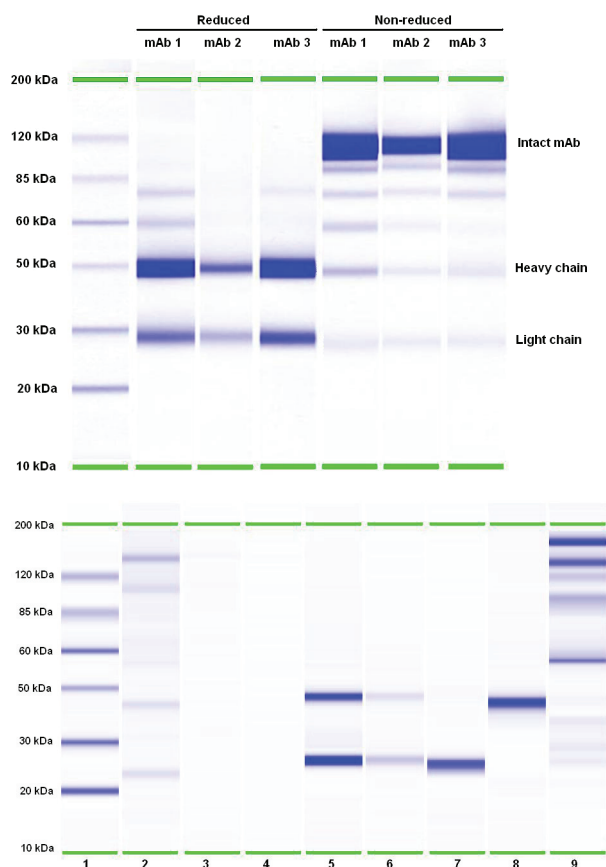
Low sample need

Use no more than 2 μ L of your precious protein samples per run.



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Agilent P200 ScreenTape applications



Lane 1 – P200 standard
 Lane 2 to 4 – cleaved protein
 Lane 5/6 – eluted GST and protease
 Lane 7 – GST
 Lane 8 – protease
 Lane 9 – uncleaved GST protein

Analytical specifications	Agilent P200 ScreenTape
Sizing range	10–200 kDa
Resolution ¹	15 %
Sizing accuracy	±10 % (CAII, lysozyme, BLG)
Sizing precision	3 % CV
Sensitivity ²	5 ng/μL (lysozyme, BSA), 12.5 ng/μL (IgG)
Quantitative range	100–1,000 ng/μL for IgG
Quantitative precision	15 % CV
Qualitative range	5–5,000 ng/μL (BSA, lysozyme), 12.5–5,000 ng/μL (IgG)

1. For ladder
 2. Signal-to-noise ratio > 3
 CAII = carbonic anhydrase, BLG = beta-lactoglobulin, BSA = bovine serum albumin

Physical specifications	
Analysis time	16 samples <15 minutes 96 samples <100 minutes
Samples per consumable	16
Sample volume required	2 μL
Kit stability	4 months
Kit size	112 samples/box

Separation of monoclonal antibodies with the Agilent P200 ScreenTape under reducing and non-reducing conditions

Three different monoclonal antibody (mAb) samples run in reducing conditions show major peaks at 47 and 28 kDa corresponding to heavy and light chains. The same mAb in non-reducing conditions show a major peak corresponding to the intact mAb and smaller bands corresponding to various heavy/light chain combinations. The intact mAb 1 was determined to be only 57 % pure.

Analysis of a GST-tagged protein during protease cleavage

Agilent P200 ScreenTape was used to check for fusion protein tag removal and to monitor column regeneration after glutathione elution. It was confirmed by comparing the molecular weight of the cleaved protein in lane 2, (143 kDa) with that of the GST-tagged protein in lane 9 (167 kDa). This shift corresponded to the removal of GST.GST (24 kDa) and protease (46 kDa) were also observed.

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