

Conclusion

The Agilent 2100 Bioanalyzer System in conjunction with its protein kit portfolio is a versatile tool for the validation of protein preparations. The results of the presented set of experiments are summarized in Table 2 to help with kit selection.

References

1. <http://www.chem.agilent.com/en-us/products/instruments/lab-on-a-chip/2100bioanalyzer/proteinkits>.
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3. "Agilent Protein 230 Kit Guide," Agilent Technologies Manual, reference number G2938-90052.
4. "Agilent High Sensitivity Protein 250 Kit Guide," Agilent Technologies Manual, reference number G2938-90310.
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6. <http://fda.gov/cder/guidance/index.htm>
7. Reviewer Guidance, Validation of Chromatographic Methods, Center for Drug Evaluation and Research, Food and Drug Administration, 1994.

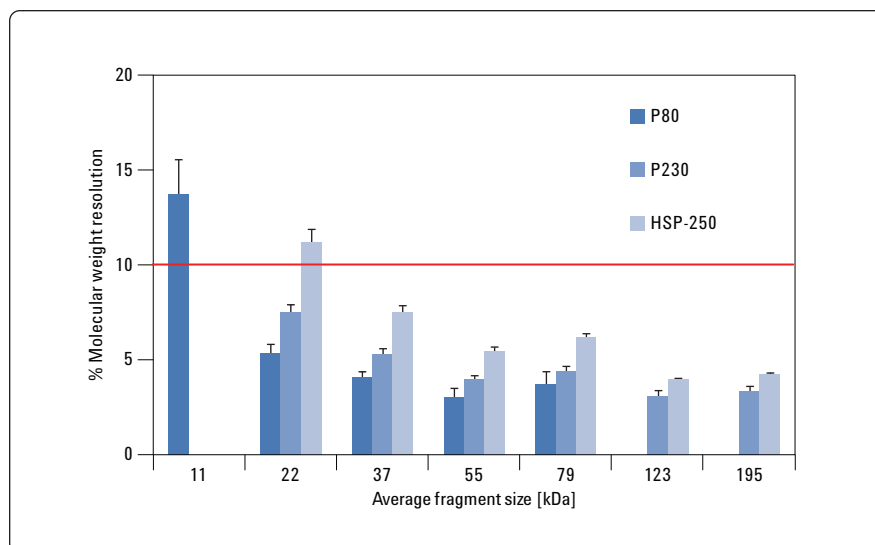


Figure 4
Molecular weight resolution across the size range of the three Protein assays: The protein size standards of the corresponding kits were analyzed and the % molecular weight resolution was calculated for pairs of adjacent ladder peaks.

	P80 Assay	P230 Assay	HSP-250 Assay
Molecular weight range	5-80 kDa	14-230 kDa	10-250 kDa
Application area	Routine assessment of low MW impurities	Routine assessment of protein impurity and size in different molecular weight range	Highly sensitive detection of impurities
Precision⁺ for: Sizing	< 3%		< 3%
Relative concentration % Purity	< 20% < 6%		< 20% < 5%
Impurity detection*	≤ 1.5%		0.03%
Protein staining/labeling	On-chip		Off-chip
Sample preparation time	~ 10 min/10 samples		~ 45 min/10 samples
Run time	~ 30 min		
MW resolution (Rs = 0.8)	< 10% for higher MW proteins		

⁺ %CV (n = 5 chips)

* with IgG2

Table 2
Summary of the present study: Listed are the key characteristics of the three Bioanalyzer protein assays.

[www.agilent.com/chem/2100 bioanalyzer](http://www.agilent.com/chem/2100_bioanalyzer)

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