

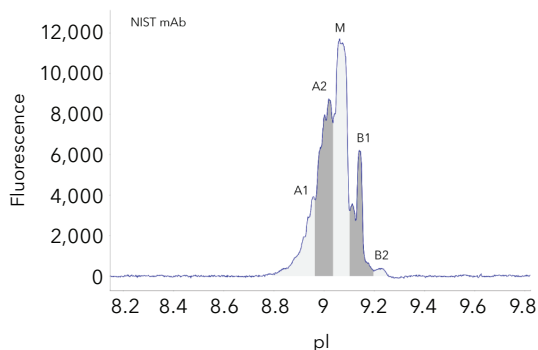
MauriceFlex™ Datasheet

One-stop icIEF, CE-SDS, and icIEF Fractionation

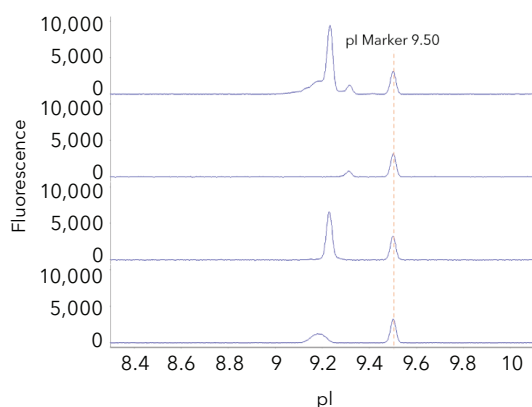
MauriceFlex™ enables charge variant fractionation in addition to routine charge heterogeneity (icIEF) and purity (CE-SDS) assays. You can now collect charge isoform fractions and follow up with in-depth characterization with intact mass, reduced mass, or peptide mapping.



icIEF Separation



icIEF Fractionation



Mass Spec Analysis

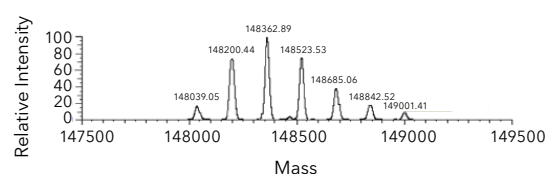
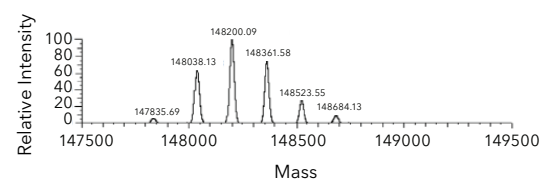
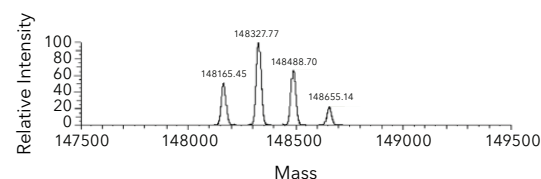
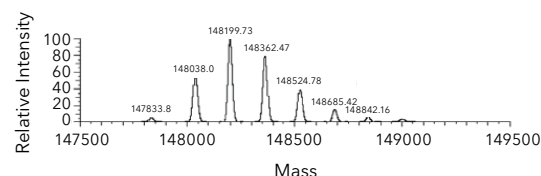


Figure 1. icIEF separation and fractionation with the icIEF Fractionation cartridge enables downstream analysis of fractions.

MauriceFlex provides an alternative icIEF-based fractionation method that saves time when compared to laborious preparative ion exchange chromatography (IEX). It eliminates the need for bridging studies when Maurice is used as the standard method for charge heterogeneity analysis. The new icIEF fractionation feature of MauriceFlex utilizes a special cartridge to perform isoelectric focusing to separate charge variants. Once focused and separated, the charge variants are collected via chemical mobilization

into wells on a sample plate. The potential for pooling fractions offers more flexibility for downstream mass spectrometry characterization.

As with our Maurice systems, switching between assays on MauriceFlex is easy. Just pop in one of the cIEF, CE-SDS, or cIEF Fractionation cartridges, load your samples, and hit Start. Switching between applications is fast, with no cross-contamination or tedious instrument cleanup.

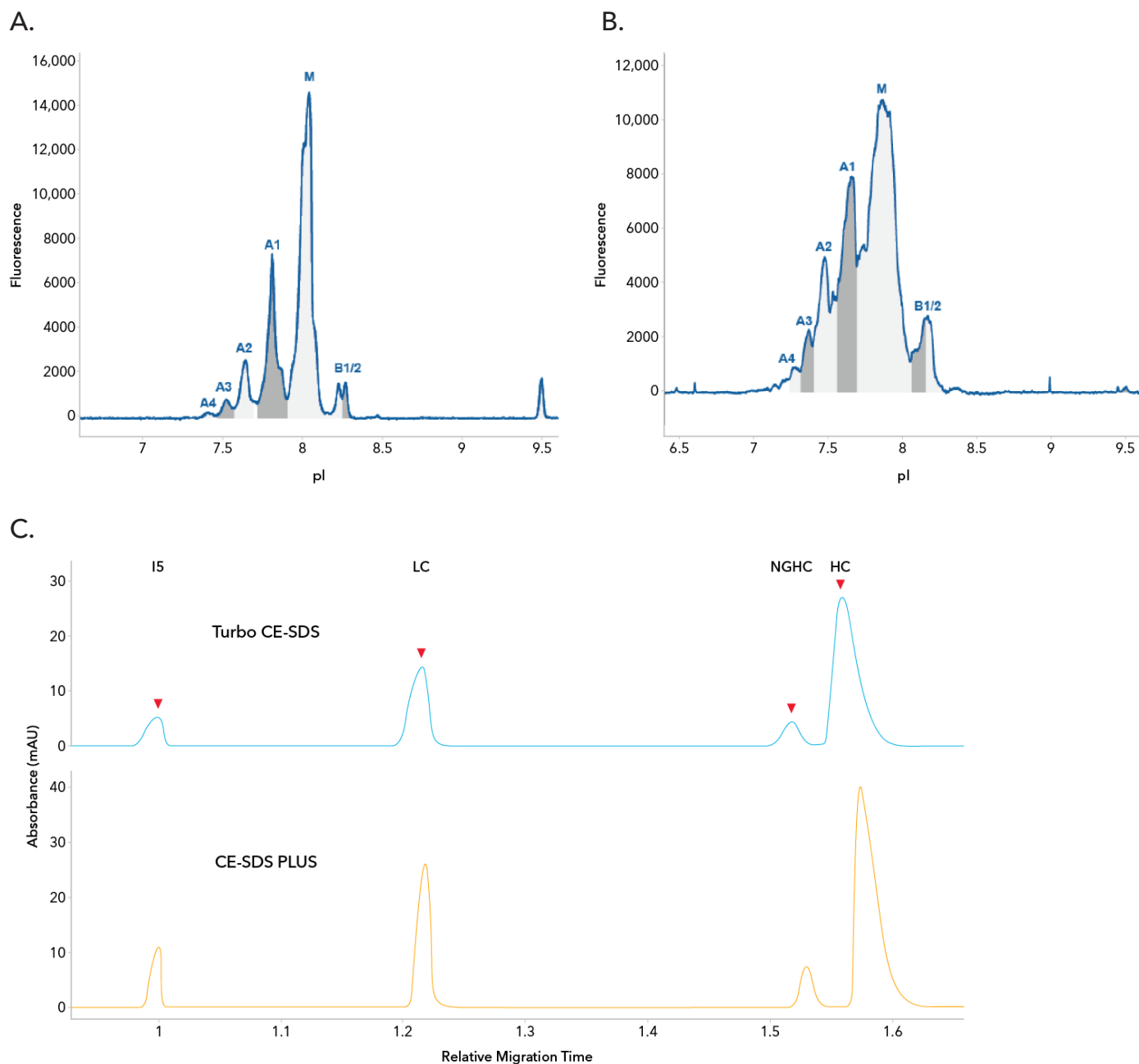


Figure 2. A. Charge separation of an ADC parent mAb with the cIEF cartridge, and B. charge separation of the same ADC parent mAb with the cIEF Fractionation cartridge. Both results have comparable number of peaks. C. Size profiles of ProteinSimple IgG Standard data using the Turbo CE-SDS and CE-SDS PLUS cartridges. Peaks are aligned using Internal Standard.

Capabilities				
System	Maurice	Maurice C.	Maurice S.	MauriceFlex
icIEF Charge Application	●	●		●
CE-SDS Size Application	●		●	●
icIEF Fractionation				●
Absorbance Detection	●	●	●	●
Fluorescence Detection	●	●		●
Onboard Mixing for Sample Prep	●	●		
Specifications				
Description	cIEF	CE-SDS PLUS	Turbo CE-SDS	cIEF Fractionation
Minimum Sample Volume	50 µL	50 µL	100 µL	100 µL
Sample Delivery	Vacuum	Electrokinetic	Electrokinetic	Vacuum
Typical Separation Time	6–10 min (molecule-dependent)	Reduced IgG: 25 min Non-reduced IgG: 35 min	Reduced IgG: 5.5 min Non-reduced IgG: 8 min	40 – 50 min (molecule-dependent)
Detection Capability	UV Absorbance at 280 nm Fluorescence: Ex 280 nm, Em 320–450 nm	UV Absorbance at 220 nm	UV Absorbance at 220 nm	Fluorescence: Ex 280 nm, Em 320–450 nm
Typical Voltage	Pre-focusing: 1,500 V; focusing: 3,000 V	Separation: 5,750 V	Separation: 4,200 V	Pre-focusing: 500 V and 1000 V; Focusing: 1500 V
Sample Injections per Cartridge	100 guaranteed, 200 maximum (max 25 batches)	100 guaranteed, 500 maximum (max 25 batches)	100 guaranteed (max 25 batches)	Maximum 15 injections
Maximum Sample Injections per Batch	100	48	96	1 (fractionation) 4 (cIEF)
pI/Size Range	2.85–10.45	10–270 kDa	10–270 kDa	3–10
pI/Sizing CV	1%	≤2%	<2%	1%
CV for Peaks >10% Composition	≤5% (Intra-batch), ≤6% (Inter-batch)	N/A	N/A	≤10% (Inter-batch)
Relative Migration Time CV	N/A	<1% for reduced IgG	<5%	N/A
pI/Sizing Resolution	0.05 pI units (for wide range 3–10 ampholyte)	≥1.5 for NGHC/HC IgG Standard	≥1.0 for NGHC/HC IgG Standard	N/A
Dynamic Range	2 logs	2 logs	2 logs	N/A
Linearity	>0.995	>0.995	>0.995	N/A
Sensitivity (LOD)	0.7 µg/mL (Native fluorescence) 3.0 µg/mL (Absorbance) (Values based on a monoclonal antibody)	0.3 µg/mL (Value based on Internal Standard)	0.6 µg/mL (Value based on Internal Standard)	N/A
Sample Tray Options	96-well plates or 48 vials			96-well plates only
Power	100 V–240 V (AC), 50/60 Hz, 500 W			
Voltage Range	0–6,500 V			
Temperature Control Range	4–25 °C			10–25 °C
Dimensions	44 cm H x 42 cm W x 61 cm D			
Weight	46 kg (100 lb)			



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