

Imaged cIEF, CE-SDS, and Imaged cIEF Fractionation

# Meet the Maurice Family

One-stop icIEF, CE-SDS and icIEF Fractionation

One-day Method Development

One Instrument for Discovery to GMP Release





# icIEF with Maurice

Get high resolution, reproducible protein charge heterogeneity data in 10 minutes with whole-column imaging based on the iCE technology!

Use same-time absorbance, or leverage native fluorescence for 4X sensitivity, using as little as 0.7 µg/mL of your precious samples.

Products: Maurice, Maurice C., MauriceFlex



## Meet the Maurice Family

### One-stop instruments for automated icIEF, CE-SDS, and icIEF fractionation.

- Get protein charge and size data on a variety of biotherapeutics - mAbs, ADCs, viral vectors, and more
- Separate and collect charge isoform fractions in just a few hours for further characterization
- Experience unparalleled ease of use, develop your methods in a day, and easily transfer them to QC

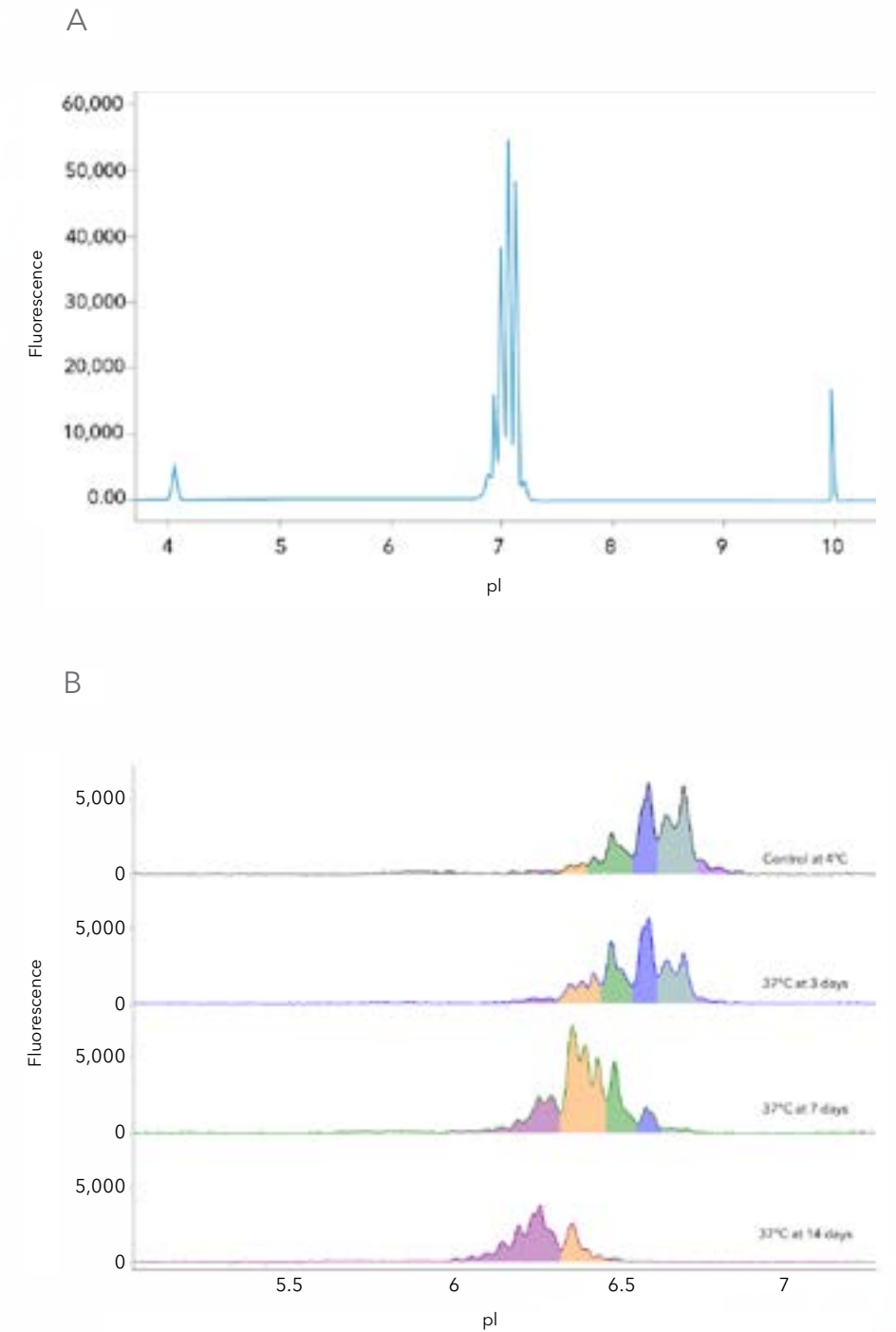


FIGURE 1: Charge profiles of (A) a monoclonal antibody, and (B) AAV8 under temperature stress.

# CE-SDS with Maurice

One platform for high-quality size and purity analysis to take you from discovery to release – simply switch between cartridges to suit your needs.

- Upstream analysis - Turbo CE-SDS™ gives you high throughput data in as little as 5.5 minutes
- Downstream analysis – CE-SDS PLUS gives you superior resolution and allows easy transfer to QC

Products: Maurice, Maurice S, MauriceFlex

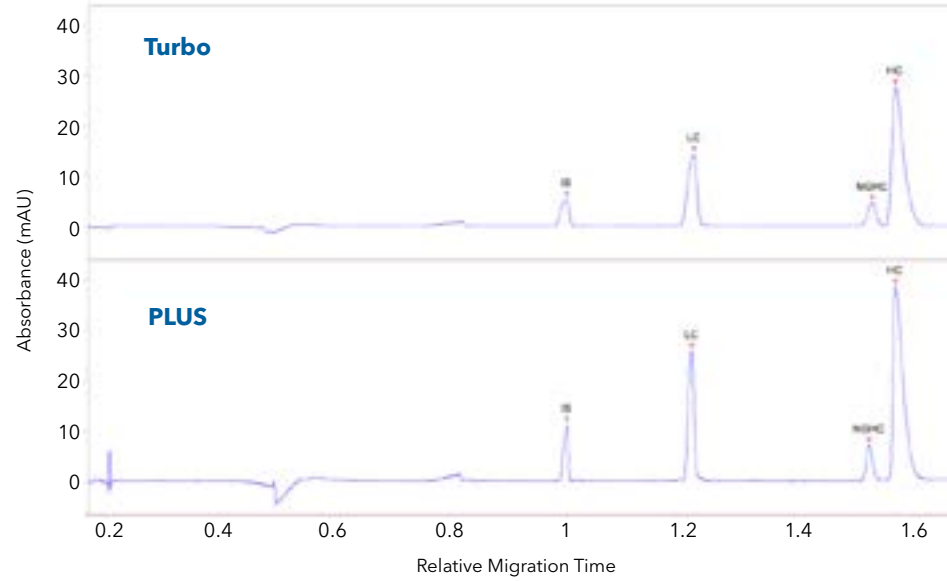


FIGURE 2: Purity analysis of Maurice IgG size standard under reduced conditions using the Turbo CE-SDS and CE-SDS Plus cartridges respectively.

# Fractionation with MauriceFlex™

In addition to CE-SDS and icIEF analysis, you can now separate and collect your charge isoform fractions on the MauriceFlex™ system.

- **Freedom to use assays of your choice**  
Get the flexibility you need with offline fractionation by analyzing your samples using intact mass, reduced mass, or peptide mapping

- **Freedom from laborious analytical techniques**  
After icIEF analysis, use the same instrument for fractionation and get your samples in a few hours instead of spending weeks on IEX method development
- **Freedom from bad clones**  
While evaluating several candidates, quickly analyze their charge variants and collect their fractions for further analysis, so you can choose the best clone and proceed with confidence

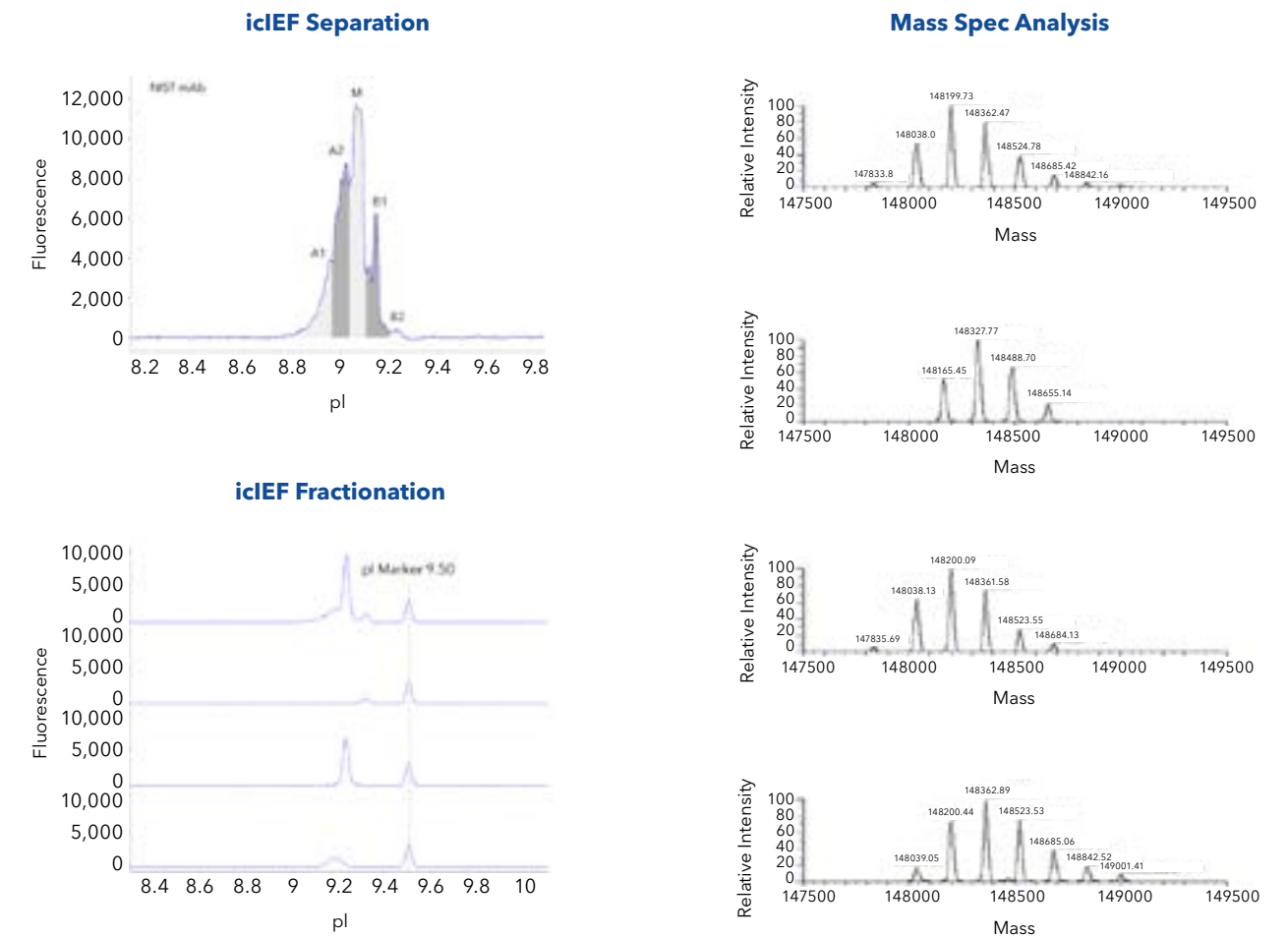
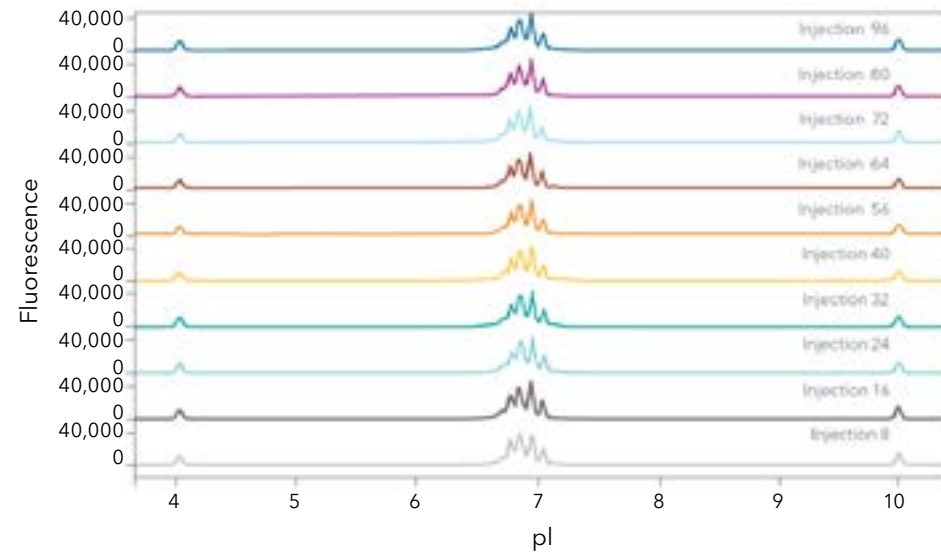


FIGURE 3: Separation and verification of protein charge profiles with MauriceFlex enables same-day offline fraction collection for further downstream characterization.

# Get Reliable Results

Get CVs under 4% day in and day out. Your data will be reliable across samples, assays, users, instruments, and labs.

Better yet, be assured of 21 CFR Part 11 compliance and traceability by using Compass for iCE or Waters Empower® software for data analysis.



**FIGURE 4:** cIEF assay performance over 100 injections with peak area CVs consistently less than 4%. 0.25 mg/mL mAb prepared with 4% 3–10 Pharmalyte, 10 mM arginine and iminodiacetic acid (IDA), pI markers 4.05 and 9.99.

# Simplify Lab Life

You no longer have to worry about instrument set up or clean up because Maurice does it for you. Simply plug in the cartridge you need - CE-SDS, cIEF, or cIEF Fractionation - then load your sample vials or 96-well plate, and hit Start. There won't be cross-contamination, and for toxic or sensitive samples, use On-Board Mixing.



# Specifications

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
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: 1500V
Sample Injections per Cartridge	100 guaranteed, 200 maximum (max 25 batches)	100 guaranteed, 500 maximum (max 25 batches)	100 guaranteed (max 25 batches)	15 guaranteed
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%	N/A
CV for Peaks > 10% Composition	≤5% (Intra-batch), ≤6% (Inter-batch)	N/A	N/A	≤6% (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	≥ 80% purity of charge variant fraction with two adjacent variants (ΔpI >0.1)
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)	≥0.005 mg/mL for collected fraction of protein charge variants with ≥5% abundance
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			
Dimensions	44 cm H x 42 cm W x 61 cm D			
Weight	46 kg (100 lb)			

# Where Science Intersects Innovation™

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**Meet the Maurice Family**

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