Molecular Devices

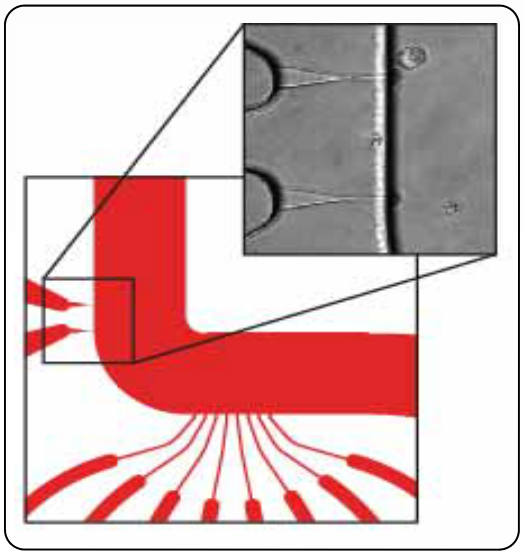
PRODUCT DATA SHEET

IonFlux F1 Giga-Ohm Seal Plates

The most versatile automated patch clamp system just got better

All the benefits you expect from the IonFlux Automated Patch Clamp System, now with single-cell giga-ohm seal plates

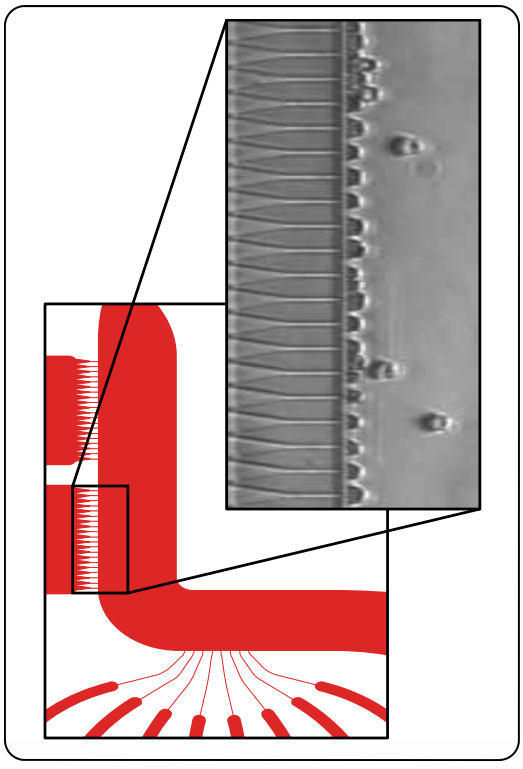
- Ensemble or single-cell giga-ohm seal
- Voltage and ligand-gated ion channels
- Continuous perfusion and rapid compound application
- Affordable — IonFlux 16 similarly priced to a manual rig
- Easy-to-use plate reader operation
- Small bench-top footprint
- High throughput — up to 10,000 data points per day (per reader)
- Integrated temperature control



Single cell plate design

Fluxion is excited to introduce single-cell recording plates for its IonFlux 16 and IonFlux HT systems. While Fluxion's ensemble recording plates set the standard for consistency and throughput, single-cell giga-ohm seal plates are ideal for cells exhibiting heterogeneous expression profiles and for detailed kinetic studies.

The new single-cell recording IonFlux F1 plates are fully compatible with existing IonFlux systems. F1 plates are handled exactly like Fluxion's ensemble-recording plates, and utilize similar recording protocols. Software-selectable amplifier gain settings are used to toggle between the two recording modes, so switching modes couldn't be easier.



Ensemble plate design

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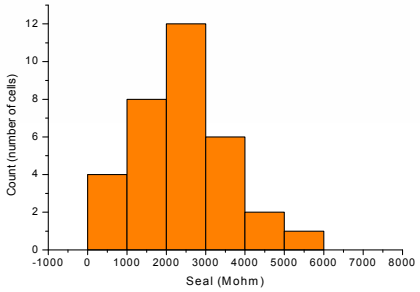
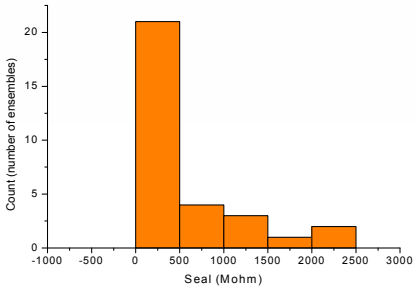
F1 Single-cell plate...

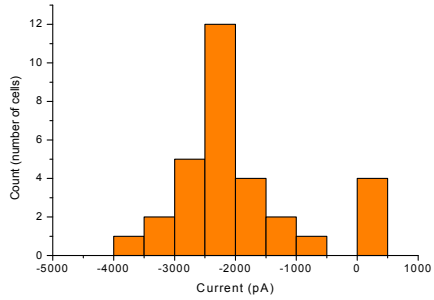


Seal distribution for single cells (Nav 1.8, 1/2 plate)

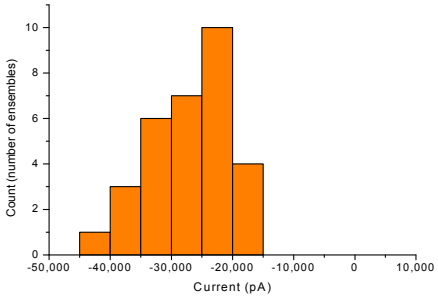
Ensemble Plate



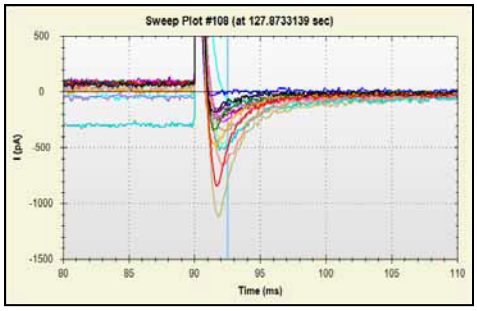
Seal distribution for ensembles (hERG, avg. per cell)



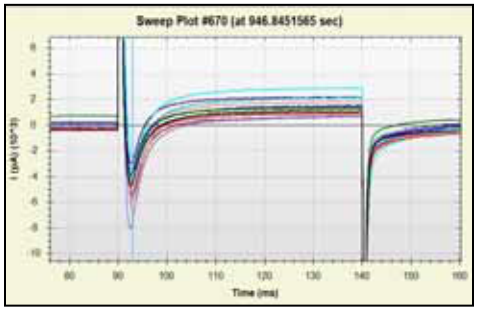
Current distribution for single cell recording (ASIC, pH5.5)



Current distribution for ASIC ensemble recording



Nav 1.8 single cell currents at V=0mV (raw data, no comp)



Nav 1.8 ensemble currents at V=0mV (raw data, no comp.)

Comparison chart - F1 Single-Ce ll Plate vs. Ensemble Plate

With the introduction of the F1single-cell giga-ohm patch clamp plate, the IonFlux system covers a greater range of applications than ever before. This chart lists the relative performance of the two plate types and typical applications. Both plates are fully compatible with the same IonFlux systems; no hardware change is required.

Attribute	Ensemble plate	F1 Single-cell plate
Cells measured per recording	20 cells in parallel	1 cell
Typical seal resistance	200 MOhm	>1 G-Ohm
Number of recordings per plate	16 to 64 recordings (IF HT)	16 to 64 recordings (IF HT)
Compound application timescale	100 ms	25 ms
Typical applications	Compound profiling, screening	Mutant characterization, kinetic analysis, heterogeneous cell lines