

IonFlux Plates

Unique microfluidic design with in-plate solution exchange

Simple Yet Intuitive Plate Design

IonFlux Plates are microfluidic devices used exclusively in the IonFlux System for automated patch clamp assays. They are integrated into SBS-standard well plate formats for convenience and compatibility with automated liquid handling instrumentation. Multiple plate formats are available which correspond to the IonFlux system configuration. Each well on the plate has a dedicated function as either a compound well, cell trapping well, cell inlet or cell outlet well.

Plates are divided into experimental patterns. Each pattern contains specified wells:

- 2 Independent Trapping wells: These wells would contain intracellular solutions
- Cell Inlet well: This well would contain the prepared cells in extracellular solution
- Cell Outlet well: Acts as a waste well for the pattern
- 8 independent compound wells: These wells would contain any combination of different compound solutions or dose response concentration gradient of the same compound. IonFlux software provides full control over these compound wells release and timing.

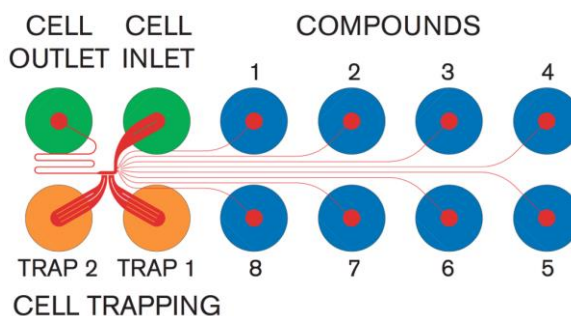
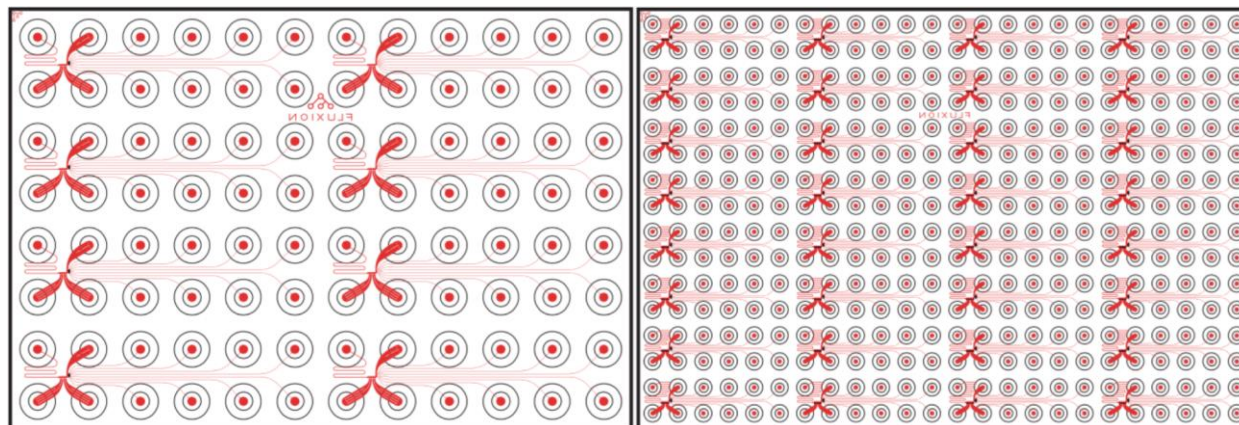


Plate Formats

IonFlux plates come in two different standard designs, 96 well plates for use with all IonFlux system having 16 amplifiers and 384 well plates for use with all IonFlux systems with 64 amplifiers.

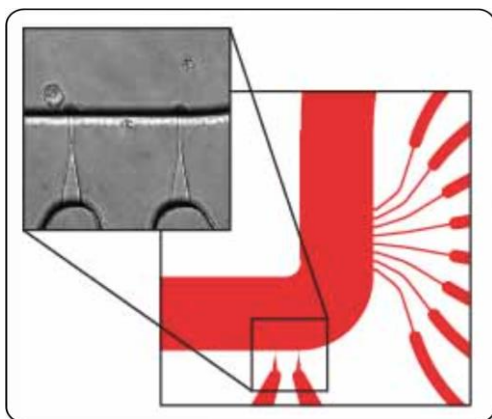


Single Cell or Ensemble Recordings

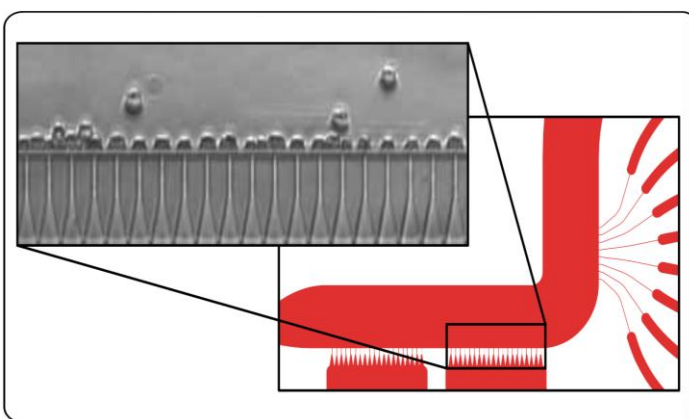
IonFlux plates come in two different cell trapping and recording designs:

- **Single Cells:** Using whole cell patch clamp technique and achieving giga-ohm seal recordings, IonFlux single cell plates are perfect for specialized assays requiring complete voltage/current control of an independent cell, mimicking manual patch clamp conditions while providing automated systems flexibility.
- **Ensemble cells:** Just like single cell plates, ensemble plates also use whole cell patch clamp techniques but now with 20 cells in parallels setting a standard for consistency and throughput

All IonFlux instruments can use either plate design with no hardware modifications.



Single Cell Plates



Ensemble Cell Plates

Part Numbers	910-0054	910-0058	910-0055	910-0059
Type	Ensemble	Single Cell	Ensemble	Single Cell
Wells	96	96	384	384
Compatibility	IonFlux 16	IonFlux 16	IonFlux HT	IonFlux HT
Recordings / plate	16	16	64	64
Patterns / plate	8	8	32	32
Recordings / pattern	2	2	2	2
Cells / trap	20	1	20	1



IonFlux systems and plates are sold and distributed by Fluxion Biosciences and its partners. Visit our website for more details.
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