

Comparison Chart

Feature	Flyscreen® 8500	PatchXpress® ¹ 7000A	IonWorks™ ¹ HT
Applications	hERG safety profiling, lead optimiz. conventional patch clamp replacement	hERG safety profiling, lead optimiz., conventional patch clamp replacement	secondary screening, lead optimiz., early toxicology screens
Voltage-clamp method	whole-cell patch clamp perforated patch clamp	whole-cell patch clamp	loose patch clamp
Electrode type	glass pipette	planar	planar
Substrate name	FlipTip®	SealChip™ ²	PatchPlate™ ¹
Substrate type	glass	glass	plastic
Substrate Source	flyion	Aviva Biosciences / external source	Molecular Devices Corp.
Recording chambers	2-6	16	384
Cell type	cultured / primary cells	cultured cells	cultured cells
Typical success rate	60-90%	50-75%	50-85%
Compounds per day	up to 70	up to 60	up to 175
Compatible ion channel types	VGIC and LGIC	VGIC and LGIC	VGIC/slow non-desensit. LGIC
Fluidics pipette type	fixed-tip	disposable plastic tips	fixed-tip
Number of fluidics pipettes	2	1	12
Recording during fluid addition	yes	yes	no
Compound washout	yes	yes	no
Number of active recording sites	2-6	1-16	48
Minimum nr. of recording sites per use	1	16	384
Data acquisition rate (range)	1 Hz – 50 kHz	1 Hz - 31.25 kHz	156 Hz - 10 kHz
Seal resistance	1 - 5 GOhm	1 - 3 GOhm	0.05 - 1 GOhm
Membrane resistance (R _m)	0.5 - 2 GOhm	0.2 - 2 Gohm	not measured
Series (access) resistance (R _s)	3.0 - 5 MOhm	< 10 MOhm	10 - 15 MOhm
R _s compensation	yes	yes	no
Membr. capac. (C _m) compensation	yes	yes	no
Cost per single consumable	moderate	high	high

¹Trademarks are property of Molecular Devices Corp. ²Trademark is property of AVIVA Biosciences Corp.