



Ion Channel, Transporter & Exchanger Portfolio

Family / Sub-Type

Acid-Sensing

ASIC1a
ASIC2a
ASIC3

Service / Platform Validation*					
Service Availability	Manual patch clamp	FastPatch (PatchXpress®)	FastPatch (QPatch HT)	ScreenPatch (IonWorks)	FLIPR ^{TETRA®}
■		■			■ ^B
■		■			
■		■	■		

Products			
Cell Line (CHO)	Cell Line (HEK)	EZCells™ DA (division-arrested)	EZCells™ TT (transient transfection)
■		■	
■		■	
■		■	

Channel Panels™									
Cardiac	Vascular	Pulmonary-Respiratory	Pain & Inflammation	Psychiatric Disorder	Seizure-Convulsion	Neurodegeneration & Stroke	Metabolic & Gastrointestinal	Genitourinary	Cancer
			●			●			
			●			●			
			●			●			

Calcium release activated current

native ICRAAC in RBL-1 or Jurkat cells

■					■
---	--	--	--	--	---

--	--	--	--	--	--

--	--	--	--	--	--	--	--	--	--

Calcium, voltage-gated

Cav1.2/β2/α2δ (Cardiac L-type)
Cav1.2/β2/α2δ/Kir2.1 (Cardiac L-type)
Cav1.3/β3/α2δ1 (L-type)
Cav2.1/β4/α2δ (P/Q-type)
Cav2.1/β4/α2δ/Kir2.1 (P/Q-type)
Cav2.2/β3/α2δ (N-type)
Cav2.2/β3/α2δ/Kir2.1 (N-type)
Cav3.1
Cav3.2 (T-type)
Cav3.2/β2/α2δ1/Kir2.1 (T-type)

■	■	■	■	■	
■					◆
■	◆				◆
■	■	■	■	■	
■	■	■	■	■	◆
■	■	■	■	■	◆
■	◆				◆
■		◆			◆
■					◆

■		■	◆		
					◆
■					◆
■		■			
■		■			◆
■		■			◆
	◆				◆
		■			◆
					◆

●	●								●
●	●								●
			●						
			●			●			
			●			●			
			●			●			
●					●				●
●					●				●

Chloride

CFTR
CLC-1
CLC-2

■			■	■	
■		■	■	■	
■		■	■	■	

■			■		
■			■		
■			■		

		●							●
									●

Hyperpolarization-gated

HCN1
HCN2
HCN4

■		◆			
■		■	■	■	
■	◆	◆	■	■	

	◆				
■		■	■	■	
■	◆	■	■	■	

●			●						●
●									●

Ligand-gated

5-HT3A (serotonin receptor)
GABA-A (α1/β2/γ2)
GABA-A (α2/β2/γ2)
GABA-A (α3/β2/γ2)
GABA-A (α5/β2/γ2)
Nicotinic receptor (nAChR) α1 (CCL-136 cell)
Nicotinic receptor (nAChR) α3 (IMR-32 cell)
Nicotinic receptor (nAChR) α3/β4
Nicotinic receptor (nAChR) α7
NMDA receptor (NR1/NR2A)
NMDA receptor (NR1/NR2B)
NMDA receptor (rat neuron)

■	◆	◆		◆ ^B	◆
■	■				■
■	■				■
■	■				■
■	■				■
■	■				■
■	■				■
■	■				■
■	◆				◆
■	◆				◆
■	■				◆

	◆				◆
■		■	■	■	
■		■	■	■	
■		■	■	■	
■		■	■	■	
■		■	■	■	
■		■	■	■	
■		■	■	■	
	◆				◆
	◆				◆

									●
									●
									●
									●
									●
									●
									●
									●
									●
									●

Potassium, calcium-activated

BK (KCa1.1)
IK (KCa3.1)
SK1 (KCa2.1)
SK2 (KCa2.2)
SK3 (KCa2.3)

■			■		
■			■		
■	■				
■	■				■
■					■

■			■		
■			■		
■			■		
■			■		
■			■		

	●	●	●		●		●	●	●
	●	●	●		●		●	●	●

Potassium, inward rectifier

Kir1.1
Kir2.1 (IK1)
Kir3.1/Kir3.4
Kir6.2/SUR1
Kir6.2/SUR2A

■	◆				
■	◆	◆	■	■	
■	◆	◆	◆	◆	
■		◆			
■		◆			

	◆				◆
■	◆	■	■	■	◆
	◆				◆
	◆				◆
	◆				◆

									●
●	●								
●									
●							●	●	

Cell lines are constructed in either CHO (■) or HEK (◆) or both (●). Gray boxes (■) indicate product in development
superscript (i) indicates inducible expression. *Platform validation references for replicating lines only. Refer to specification sheets for EZCells® validation.
IonWorks platform is either IonWorks Quattro™ or IonWorks Barracuda™. Barracuda validation is indicated with a superscript "B".

Family / Sub-Type

Potassium, voltage-gated

- Kv1.1
- Kv1.2
- Kv1.3
- Kv1.4
- Kv1.5
- Kv1.6
- Kv1.7
- Kv3.4
- Kv4.2/KChIP2.2
- Kv4.3
- Kv4.3/KChIP2.2
- Kv7.1 (KvLQT1-minK; KCNQ1-KCNE1)
- Kv7.2/Kv7.3 (KCNQ2/KCNQ3)
- Kv7.2/Kv7.4 (KCNQ2/KCNQ4)
- Kv7.3/Kv7.5 (KCNQ3/KCNQ5)
- Kv7.4 (KCNQ4)
- Kv11.1 (hERG)

Purinergic receptors

- P2X1
- P2X2
- P2X2/P2X3
- P2X3
- P2X4
- P2X7

Sodium, epithelial

- ENaC

Sodium/calcium exchanger

- NCX1.1

Sodium, voltage-gated

- Nav1.1
- Nav1.2
- Nav1.3
- Nav1.4
- Nav1.5
- Nav1.6
- Nav1.7
- Nav1.8/β3

TRP (transient receptor potential)

- TRPA1
- TRPC1
- TRPC4
- TRPC6
- TRPM4
- TRPM8
- TRPV1
- TRPV4
- TRPV6

Family / Sub-Type	Service / Platform Validation*						Products				Channel Panels™									
	Service Availability	Manual patch clamp	FastPatch (PatchXpress®)	FastPatch (QPatch HT)	ScreenPatch (IonWorks)	FLIPR™ ^{TETRA}	Cell Line (CHO)	Cell Line (HEK)	EZCells™ DA (division-arrested)	EZCells™ TT (transient transfection)	Cardiac	Vascular	Pulmonary-Respiratory	Pain & Inflammation	Psychiatric Disorder	Seizure-Convulsion	Neurodegeneration & Stroke	Metabolic & Gastrointestinal	Genitourinary	Cancer
Kv1.1	■		◆	◆	◆		■	◆									●			
Kv1.2	■						■	◆												
Kv1.3	■		◆				■	◆												
Kv1.4	■						■	◆												
Kv1.5	■	◆	◆		■		■	◆												
Kv1.6	■	◆					■	◆												
Kv1.7	■	◆							◆											
Kv3.4	■		◆				■	◆												
Kv4.2/KChIP2.2	■	◆					■	◆												
Kv4.3	■	◆	◆		■		■	◆												
Kv4.3/KChIP2.2	■	■			■		■	◆												
Kv7.1 (KvLQT1-minK; KCNQ1-KCNE1)	■	■			■		■	◆												
Kv7.2/Kv7.3 (KCNQ2/KCNQ3)	■		◆		◆		■	◆												
Kv7.2/Kv7.4 (KCNQ2/KCNQ4)	■				■		■	◆												
Kv7.3/Kv7.5 (KCNQ3/KCNQ5)	■		◆		◆		■	◆												
Kv7.4 (KCNQ4)	■		◆		◆		■	◆												
Kv11.1 (hERG)	■	◆			■		■	◆												●
P2X1	■							◆											●	●
P2X2	■				◆			◆												
P2X2/P2X3	■				◆			◆												
P2X3	■							◆												
P2X4	■		◆		◆			◆												
P2X7	■				◆			◆												
ENaC	■	■							■											
NCX1.1	■	◆				◆		◆												
Nav1.1	■		◆		■		■	◆												
Nav1.2	■	◆	◆		■		■	◆												
Nav1.3	■				■		■	◆												
Nav1.4	■				■		■	◆												
Nav1.5	■				■		■	◆												
Nav1.6	■				■		■	◆												
Nav1.7	■				■		■	◆												
Nav1.8/β3	■		◆		■		■	◆												●
TRPA1	■	■					■		■											
TRPC1	■	◆						◆												
TRPC4	■							◆												
TRPC6	■	◆					■	◆												●
TRPM4	■	■					■		■											
TRPM8	■	■			■		■		■											
TRPV1	■	◆			■		■	◆												
TRPV4	■	■					■		■											
TRPV6	■	◆					■	◆												●