



Ion Channel Portfolio

Our ion channel portfolio is the most comprehensive library of ion channel-expressing cell lines for research, drug discovery and preclinical development. Cell lines are validated for structure, function and pharmacology, and performance is characterized on conventional manual patch clamp or one or more automated electrophysiology platforms. Stable, replicating cell lines are available for many of the ion channels in our portfolio. We also offer EZCells®, division-arrested or transient transfected cells ideal for rapid, cost-effective screening and profiling.

We provide detailed methodology and consultation to support and expedite assay set up. Our portfolio has also been organized into Channel Panels® based on current scientific findings for screening and selectivity profiling. We offer off-the-shelf screening on a number of electrophysiology platforms or can provide customized panels, with expert consultation to facilitate interpretation.

For pricing information, detailed technical sheets, or to speak with one of our experts, please contact us at 1.877.CRIVER.1 or by email at CLE-info@crl.com. We are always developing new cell lines and validating new assays, and will work with you on custom projects.

For the most up-to-date list of our offerings, visit www.criver.com/ion-channel.

Ion Channel Family/Subtype	Services				Products					Channel Panels®										
	Manual Patch Clamp	FASTPatch® (QPatch HT®)	ScreenPatch® (IonWorks® Barracuda™)	FLIPR®	Stable Cell Line (CHO)	Stable Cell Line (HEK293)	EZCells® Transient Transfected	EZCells® Division Arrested	Membrane Preparation	Cardiac	Cancer	Cardiovascular	Genitourinary	Metabolic and Gastrointestinal	Neurodegeneration-Stroke	Pain-Inflammation	Seizure-Convulsion	Psychiatric Disorder	Pulmonary-Respiratory	
Acid-Sensing-Neuronal Cation																				
ASIC1a	•	•	•		CT6012			CT4012							•	•				
ASIC2a		•	•		CT6172			CT4072								•				
ASIC3		•	•		CT6173			CT4073								•				
Calcium, Voltage-Gated																				
Cav1.2/β ₂ /α ₂ δ (L-type)	•	•	•	•	CT6004			CT4004	CT3004	•	•	•								
Cav1.2/β ₂ /α ₂ δ/Kir2.1 (L-type)				•	CT6621**		CT7229					•								
Cav1.3/β ₃ /α ₂ δ ₁ (L-type)			•			CT6232	CT7232					•			•				•	

* New ** Coming Soon

EVERY STEP OF THE WAY

Ion Channel Family/Subtype	Services				Products					Channel Panels®									
	Manual Patch Clamp	FASTPatch® (QPatch HT®)	ScreenPatch® (IonWorks® Barracuda™)	FLIPR®	Stable Cell Line (CHO)	Stable Cell Line (HEK293)	EZCells® Transient Transfected	EZCells® Division Arrested	Membrane Preparation	Cardiac	Cancer	Cardiovascular	Genitourinary	Metabolic and Gastrointestinal	Neurodegeneration-Stroke	Pain-Inflammation	Seizure-Convulsion	Psychiatric Disorder	Pulmonary-Respiratory
Calcium, Voltage-Gated (Continued)																			
Cav1.3/ $\beta_3/\alpha_2\delta_1$ /Kir2.1 (L-type)				•		CT6209													
Cav2.1/ $\beta_2/\alpha_2\delta$ (P/Q-type)	•	•	•		CT6196			CT4196								•	•		
Cav2.1/ $\beta_4/\alpha_2\delta$ /Kir2.1 (P/Q-type)				•			CT7230												
Cav2.2/ $\beta_3/\alpha_2\delta$ (N-type)	•	•	•		CT6159			CT4159	CT3159							•			
Cav2.2/ $\beta_3/\alpha_2\delta_1$ /Kir2.1 (N-type)				•			CT6210												
Cav3.1 (T-type)	•		•				CT7197					•			•				
Cav3.2 (T-type)	•	•	•	•		CT6106	CT6106			•	•	•				•	•		
Cav3.2/ $\beta_2/\alpha_2\delta_1$ /Kir2.1 (T-type)				•			CT7112												
Cav3.3 (T-type)	•		•			CT6622													
Calcium, Calcium-Release Activated																			
ICRAC (endogenous in Jurkat)				•															
Chloride																			
CFTR			•		CT6113									•	•				•
CLC1		•			CT6175									•					
CLC2		•	•		CT6176			CT4176						•	•		•		
TMEM16A abc			•			CT6612													
TMEM16A abcd			•			CT6613													
G Protein-Coupled																			
GIRK1/GIRK2/M4 (rat, mouse, human)				•		CT6301													
GIRK1/GIRK4/M4 (rat, rat, human)				•		CT6302													
Hyperpolarization-Gated																			
HCN1		•	•	•	CT6114											•	•		
HCN2		•	•	•	CT6115	CT6151*		CT4115		•		•					•		
HCN3			•		CT6124**	CT6125*													
HCN4		•	•	•	CT6177	CT6006		CT4177		•		•							
Ligand-Gated																			
5HT3A			•	•		CTN6117	CTN7117							•					
AMPA receptor GLUA1/GluA2				•			CT7412*												
AMPA receptor GLUA1/GluA4				•			CT7414*												
GABA-A ($\alpha_4/\beta_1/\gamma_2$)			•	•			CT7240*												

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Ligand-Gated (Continued)																			
GABA-A ($\alpha_1/\beta_2/\gamma_2$)			•	•			CT7199												•
GABA-A ($\alpha_2/\beta_2/\gamma_2$)				•			CT7118												•
GABA-A ($\alpha_3/\beta_2/\gamma_2$)				•			CT7022												
GABA-A ($\alpha_3/\beta_2/\gamma_2$)				•			CT7119											•	•
GABA-A ($\alpha_4/\beta_3/\gamma_2$)			•	•		CT6216			CT3216										•
GABA-A ($\alpha_2/\beta_3/\gamma_2$)			•	•		CT6217			CT3217										•
GABA-A ($\alpha_3/\beta_3/\gamma_2$)			•	•		CT6218									•				•
GABA-A ($\alpha_4/\beta_3/\gamma_2$)			•	•		CT6219													•
GABA-A ($\alpha_3/\beta_3/\gamma_2$)			•	•		CT6230			CT3230										•
GABA-A ($\alpha_3/\beta_3/\gamma_2$) (mouse)				•		CT6239													
Nicotinic nAChR α_1^* (endogenous in RD rhabdomyosarcoma)			•	•															
Nicotinic nAChR α_3/β_4			•	•	CT6021			CT4021	CT3021		•				•				
Nicotinic nAChR $\alpha_3/\beta_4/\alpha_5$			•	•	CT6024														•
Nicotinic nAChR α_2/β_4			•	•	CT6023														•
Nicotinic nAChR $\alpha_3/\beta_2/\beta_3$			•	•		CT6265													•
Nicotinic nAChR α_7/Ric_3	•		•	•	CT6201			CT4201	CT3201		•			•	•			•	•
NMDA receptor NR1/NR2A			•	•		CT6120								•	•	•		•	•
NMDA receptor NR1/NR2B	•		•	•		CTN6121								•	•	•		•	•
NMDA receptor NR1/NR2C			•	•		CT6233								•					•
NMDA receptor NR1/NR2D			•	•		CT6234								•					•
Multidrug Resistance Transporter																			
MDR1				•		CT6202													
Potassium, Calcium-Activated																			
KCa1.1/ β_1 (BK)		•			CT6122						•	•	•	•		•	•		•
KCa2.1 (SK1)	•			•	CT6180	CT6321		CT4180						•					•
KCa2.2 (SK2)				•	CT6181	CT6322	CT7181	CT4181						•	•			•	•
KCa2.3 (SK3)				•	CT6182	CT6323	CT7182	CT4182			•	•	•	•				•	•
KCa3.1 (IK, SK4)		•		•	CT6123			CT4183			•	•	•	•	•	•		•	•

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Potassium, Inward Rectifier																			
Kir1.1	•						CT7102					•							
Kir2.1	•	•	•		CT6127	CT6103	CT7103	CT4127		•	•								
Kir3.1/Kir3.4 (GIRK1/GIRK4)	•	•				CT6017				•	•								
Kir4.1				•			CT7128**												
Kir6.2/SUR1		•											•						
Kir6.2/SUR2A		•				CT6183				•	•								
Potassium, Two-Pore																			
TASK-3 (K _{2p} 9.1)	•			•		CT6351													
Potassium, Voltage-Gated																			
Kv1.1	•	•				CT6130								•		•			
Kv1.2		•			CT6131	CT6132								•					
Kv1.3		•	•		CT6133	CT6134	CT7134	CT4133			•	•	•	•	•				•
Kv1.4		•			CT6135	CT6136									•				
Kv1.5	•	•	•		CT6137	CT6138		CT4137		•	•	•		•					•
Kv1.6	•		•				CT7220												
Kv1.7	•						CT7221												
Kv2.1			•				CT7223							•					
Kv3.2			•				CT7301												
Kv3.4		•	•			CT6140								•					
Kv4.2/KChiP2.2	•	•	•			CT6142									•	•			
Kv4.3	•	•			CT6143	CT6144				•	•								
Kv4.3-KChiP2.2	•	•	•		CT6171			CT4171		•									
Kv7.1 (KvLQT1-minK)	•	•	•		CT6101			CT4101		•	•								
Kv7.2/Kv7.3 (KCNQ2/KCNQ3)		•	•	•		CT6147								•	•	•	•		
Kv7.2/Kv7.4 (KCNQ2/KCNQ4)		•		•	CT6148										•	•			
Kv7.3/Kv7.5 (KCNQ3/KCNQ5)		•		•		CT6018										•	•		
Kv7.4 (KCNQ4)		•		•	CT6016			CT4016											
Kv11.1 (hERG)	•	•	•		CT6002	CT6001	CT7002			•	•	•							

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Purinergic Receptors																			
P2X1				•	CT6186								•	•		•			
P2X2				•	CT6187											•			
P2X2/P2X3				•	CT6179		CT7179												
P2X3	•			•	CT6188		CT7188						•	•		•			
P2X4				•	CT6189		CT7189					•				•			•
P2X7	•			•	CT6190											•			
P2X7 (rat)				•			CT7244*												
Sodium/Calcium Exchanger																			
NCX1.1				•	CT6206						•	•							
NCX1.3	•						CT7251												
Sodium, Voltage-Gated																			
Nav1.1	•	•	•		CT6178	CT6170		CT4178							•	•	•		
Nav1.1/β ₁ /β ₂			•																
Nav1.2	•	•	•	•	CT6010	CT6156		CT4010							•	•	•		
Nav1.2/β ₁ /β ₂			•																
Nav1.3	•	•	•		CT6157	CT6009		CT4157							•	•	•		
Nav1.3/β ₁ /β ₂			•																
Nav1.4	•	•	•		CT6005			CT4005											
Nav1.5	•	•	•	•	CT6007	CT6207	CT7207				•	•							
Nav1.6	•	•	•		CT6158	CT6008		CT4158							•		•		
Nav1.6/β ₁ /β ₂			•																
Nav1.7	•	•	•	•	CT6003	CT6160		CT4003			•					•			
Nav1.7 (rat)		•	•		CT6013						•								
Nav1.8				•		CT6609													
Nav1.8/β ₃	•	•	•		CT6011			CT4011								•			
Nav1.8/β ₃ (rat)			•		CT6014*														
Epithelial Sodium Channel																			
ENaC				•		CT6259	CT7259					•	•						•

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TRP (Transient Receptor Potential)																			
TRPA1			•	•	CT6191			CT4191											•
TRPA1 (rat)				•			CT7161*												•
TRPC3v1				•		CT6030													
TRPC3v2				•		CT6031													
TRPC4α				•		CT6164				•	•			•	•				
TRPC4β				•		CT6025**													
TRPC5			•	•		CT6032													
TRPC6	•			•		CT6192				•	•	•							•
TRPC7				•			CT7167**												
TRPM2				•			CT7166							•					
TRPM3				•			CT7035*												
TRPM4	•			•	CT6015			CT4015			•							•	
TRPM5		•		•	CT6037*		CT7037												
TRPM8	•	•		•	CT6193			CT4193		•		•				•			
TRPV1	•		•	•		CT6015	CT7015			•	•	•	•	•	•				•
TRPV1 (rat)				•			CT7162*			•	•	•	•	•	•				•
TRPV2				•			CT7034												
TRPV3				•			CT7039*												
TRPV4	•			•	CT6194		CT7194				•	•				•			•
TRPV6	•			•			CT6169			•									

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