Table 3. Statistics: Whole Cell Electrophysiology - pertaining to Figure 2.

Max. macroscopic sodium current developed $V^{act}_{1/2}$ (mV) The voltage at which half-maximal $v_{ac}$ (pA pF $^{-1}$ ) Max. current density developed, adjusted for capacitance $v_{acc}$ (pA mV $^{-1}$ ) Max. conductance developed, adjusted for driving force $v_{acc}$ (pA pF $^{-1}$ ) Max. conductance density developed, adjusted for driving force $v_{acc}$ (pA pF $^{-1}$ ) Max. conductance density developed, adjusted for driving force & capacitance $v_{acc}$ (mV) The rate of current decay over the $v_{acc}$ (mV) Observed reversal potential of the sodium current-voltage relationship $v_{acc}$ (pA pF $^{-1}$ ) Membrane potential at which Max. current is developed Tau <sub>oofi</sub> (ms) The time constant of onset of inactivation	Test:		Kruskal-Wallis (Non-Para	ametric ANOVA)	
Provide   Pro	Variable	I <sub>max</sub> (pA) by Genotype	I <sub>max</sub> (pA pF <sup>-1</sup> ) by Genotype	G <sub>max</sub> (pA mV <sup>-1</sup> ) by Genotype	G <sub>max</sub> (pA pF <sup>-1</sup> mV <sup>-1</sup> ) by Genotype
p-value Observations         0.000029         0.00004993         0.00004677         0.0000862           Variable Variable         E <sub>rev</sub> (mV)         E <sub>m</sub> at I <sub>mov</sub> (pA pF²) by Genotype         E <sub>m</sub> (mV, I <sub>window,peak</sub> ) by Genotype         Fraction I <sub>window,peak</sub> by Genotype           chi-squared off 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	chi-squared	20.895	19.81	19.94	18.718
Observations         77         76         76           Variable $E_{rev}$ (mV) $E_m$ at $I_{mox}$ (pA pF $^{-1}$ ) by Genotype $E_m$ (mV, $I_{window,peak}$ ) by Genotype         Fraction $I_{window,peak}$ by Genotype           chi-squared off         2.1027         3.9776         1.6093         2.5406           g-value         0.349500         0.1369         0.4472         0.2808           Observations         77         77         68         68           Variable         Variable value         Value value					
Variable   E <sub>rev</sub> (mV)   E <sub>m</sub> at I <sub>max</sub> (pA pF <sup>-1</sup> ) by Genotype   E <sub>m</sub> (mV, I <sub>window,peak</sub> ) by Genotype   Chi-squared   2.1027   3.9776   1.6093   2.5406   2   2   2   2   2   2   2   2   2	•				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Observations	77	77	76	76
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Variable	E <sub>rev</sub> (mV)	E <sub>m</sub> at I <sub>max</sub> (pA pF <sup>-1</sup> ) by Genotype	E <sub>m</sub> (mV, I <sub>window,peak</sub> ) by Genotype	Fraction I <sub>window,peak</sub> by Genotype
P-value   D.349500   D.1369   D.4472   D.2808	chi-squared	2.1027		1.6093	2.5406
Observations         77         77         68         68           Variable         V³act 1/12 (mV) by Genotype         k¹act (mV) by Genotype         V³inact 1/12 (mV) by Genotype         k¹nact (mV) by Genotype           chi-squared df         2.6801         5.3346         1.8052         1.4302           p-value         0.261800         0.06944         0.4055         0.4891           Observations         79         79         84         84           Variable         RFI <sub>slope</sub> (ms mV¹) by Genotype         Tau <sub>oofi</sub> (ms) by Genotype         G <sub>slope</sub> (pA pF¹ mV¹) by Genotype         Cell Capacitance (pF) by Genotype           chi-squared df         4.7273         8.0805         1.3142         0.089097           df         2         2         2         2           p-value observations         61         57         77         115           finitions: (pA pF¹)         Max. macroscopic sodium current developed adjusted for capacitance         V²act (mV) (mV)         The voltage at which half-maxim (pA pF¹) Max. corruent density developed, adjusted for driving force         V¹nact (mV)         The rate of current development (mV)           v(pA pF¹)         Max. conductance developed, adjusted for driving force         V¹nact (mV)         The rate of current decay over the voltage relationship         RFI <sub>slope</sub> (ms mV¹)         T	df	2	2	2	2
Variable Var	p-value	0.349500	0.1369	0.4472	0.2808
chi-squared 2.6801 5.3346 1.8052 1.4302 df 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Observations	77	77	68	68
chi-squared df 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Variable	V <sup>act</sup> <sub>1/2</sub> (mV) by Genotype	k <sup>act</sup> (mV) by Genotype	V <sup>inact</sup> <sub>1/2</sub> (mV) by Genotype	k <sup>inact</sup> (mV) by Genotype
p-value Observations0.2618000.069440.40550.4891Variable Chi-squared observationsRFI <sub>slope</sub> (ms mV $^{-1}$ ) by GenotypeTauoofi (ms) by GenotypeGenotypeGenotypeCell Capacitance (pF) by GenotypeChi-squared off p-value Observations4.7273 2 4 618.0805 2 2 2 2 2 2 2 2 2 2 2 2 3 4 	chi-squared	2.6801		1.8052	
VariableRFI $_{slope}$ (ms mV $^{-1}$ ) by GenotypeTau $_{oofi}$ (ms) by Genotype $G_{slope}$ (pA pF $^{-1}$ mV $^{-1}$ ) by GenotypeCell Capacitance (pF) by Genotypechi-squared df p-value4.72738.08051.31420.089097df p-value0.0940800.017590.51840.9564Observations615777115finitions: x (pA) x (pA pF $^{-1}$ )Max. macroscopic sodium current developed x (pA mV $^{-1}$ )Vact 1/2 (mV)The voltage at which half-maxim ylazer (pA mV $^{-1}$ ) $V_{tot}$ (pA mV $^{-1}$ )Max. conductance developed, adjusted for driving force vor (pA pF $^{-1}$ )Vinact 1/2 (mV)The voltage at which half-maxim ylazer (pA pF $^{-1}$ ) $V_{tot}$ (pA pF $^{-1}$ )Max. conductance developed, adjusted for driving force & capacitance v (mV)Vinact 1/2 (mV)The voltage at which half-maxim ylazer (mV) $V_{tot}$ (mV)Observed reversal potential of the sodium current-voltage relationshipRFI $_{slope}$ (ms mV $^{-1}$ )The rate of current decay over the The time constant of onset of ince	df	2	2	2	2
VariableRFI $_{slope}$ (ms mV $^{-1}$ ) by GenotypeTau $_{oofi}$ (ms) by GenotypeG $_{slope}$ (pA pF $^{-1}$ mV $^{-1}$ ) by GenotypeCell Capacitance (pF) by Genotypechi-squared4.72738.08051.31420.089097df2222p-value0.0940800.017590.51840.9564Observations615777115finitions:Definitions:Definitions: $_{x}$ (pA)Max. macroscopic sodium current developedVact (mV)The voltage at which half-maxim (pA pF $^{-1}$ ) $_{x}$ (pA pF $^{-1}$ )Max. current density developed, adjusted for capacitance $_{x}$ (mV)The rate of current development (mx) $_{x}$ (pA pF $^{-1}$ )Max. conductance developed, adjusted for driving force $_{x}$ (mV)The voltage at which half-maxim (pA pF $^{-1}$ ) $_{x}$ (pA pF $^{-1}$ )Max. conductance density developed, adjusted for driving force & capacitance $_{x}$ (mV)The rate of current decay over the constant of current decay over the constant of current decay over the curre	p-value	0.261800	0.06944	0.4055	0.4891
chi-squared 4.7273 8.0805 1.3142 0.089097 df 2 2 2 2 2 p-value 0.094080 0.01759 0.5184 0.9564 Observations 61 57 77 115  finitions:	Observations	79	79	84	84
chi-squared 4.7273 8.0805 1.3142 0.089097 df 2 2 2 2 2 p-value 0.094080 0.01759 0.5184 0.9564 Observations 61 57 77 115  finitions:	Variable	RFI <sub>slope</sub> (ms mV <sup>-1</sup> ) by Genotype	Tau <sub>oofi</sub> (ms) by Genotype	G <sub>slane</sub> (pA pF <sup>-1</sup> mV <sup>-1</sup> ) by Genotype	Cell Capacitance (pF) by Genotype
p-value 0.094080 0.01759 0.5184 0.0564  Observations 61 57 77 115  finitions: Definitions: Var. (PA) Max. macroscopic sodium current developed $V^{act}_{1/2}$ (mV) The voltage at which half-maxim $V^{act}_{1/2}$ (mV) The rate of current development $V^{act}_{1/2}$ (mV) The rate of current development $V^{act}_{1/2}$ (mV) The voltage at which half-maxim $V^{act}_{1/2}$ (pA pF <sup>-1</sup> ) Max. conductance developed, adjusted for driving force $V^{inact}_{1/2}$ (mV) The voltage at which half-maxim $V^{act}_{1/2}$ (pA pF <sup>-1</sup> ) Max. conductance density developed, adjusted for driving force & capacitance $V^{inact}_{1/2}$ (mV) The rate of current decay over the $V^{inact}_{1/2}$ (mV) The rate of current decay over the $V^{inact}_{1/2}$ (mV) The rate of current decay over the $V^{inact}_{1/2}$ (mV) Observed reversal potential of the sodium current-voltage relationship $V^{inact}_{1/2}$ (mS mV <sup>-1</sup> ) The rate of recovery from inactive at $V^{inact}_{1/2}$ (mS mPC) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time constant of onset of incomplete $V^{inact}_{1/2}$ (mS) The time $V^{inact}_{1/2}$ (mS) The time $V^{inact}_{1/2}$ (	chi-squared				
Observations 61 57 77 115  finitions:	df	2	2	2	2
finitions:  x (pA)  Max. macroscopic sodium current developed  X (pA pF <sup>-1</sup> )  Max. current density developed, adjusted for capacitance  X (pA pF <sup>-1</sup> )  Max. conductance developed, adjusted for driving force  (pA mV <sup>-1</sup> )  Max. conductance developed, adjusted for driving force  (pA pF <sup>-1</sup> mV <sup>-1</sup> )  Max. conductance density developed, adjusted for driving force & capacitance  (pA pF <sup>-1</sup> mV <sup>-1</sup> )  Max. conductance density developed, adjusted for driving force & capacitance  (pA pF <sup>-1</sup> mV <sup>-1</sup> )  Max. conductance density developed, adjusted for driving force & capacitance  (mV)  The rate of current decay over the control of the sodium current-voltage relationship  RFI <sub>slope</sub> (ms mV <sup>-1</sup> )  The rate of recovery from inactive at I <sub>max</sub> (pA pF <sup>-1</sup> )  Membrane potential at which Max. current is developed  Tau <sub>oofi</sub> (ms)  The time constant of onset of inactive at I <sub>max</sub> (pA pF <sup>-1</sup> )	p-value	0.094080	0.01759	0.5184	0.9564
Max. macroscopic sodium current developed  Vat (pA pF <sup>-1</sup> )  Max. current density developed, adjusted for capacitance  (pA pF <sup>-1</sup> )  Max. conductance developed, adjusted for driving force  Vat (mV)  Max. conductance developed, adjusted for driving force  Vat (mV)  Vat (mV)  Observed reversal potential of the sodium current is developed  Max. current developed  Vat (mV)  The voltage at which half-maxim  Vat (mV)  The voltage at which half-maxim  The voltage at which half-maxim  Refusion  Refusion  Refusion  The rate of current decay over the sodium current woltage relationship  Refusion  The rate of recovery from inactive  The rate of recovery from inactive  The time constant of onset of inactive  The voltage at which half-maxim  The voltage at which half-ma	Observations	61	57	77	115
Max. current density developed, adjusted for capacitance $k^{act}$ (mV) The rate of current development $k^{act}$ (mV) The voltage at which half-maxim $k^{act}$ (pA mV <sup>-1</sup> ) Max. conductance developed, adjusted for driving force $k^{act}$ (mV) The voltage at which half-maxim $k^{act}$ (pA pF <sup>-1</sup> mV <sup>-1</sup> ) Max. conductance density developed, adjusted for driving force & capacitance $k^{inact}$ (mV) The rate of current decay over the $k^{inact}$ (mV) The rate of current decay over the $k^{inact}$ (mV) The rate of recovery from inactive at $k^{inact}$ (pA pF <sup>-1</sup> ) Membrane potential at which Max. current is developed Tau <sub>ooff</sub> (ms) The time constant of onset of inactive $k^{inact}$ (ms) The time constant of onset of inactive $k^{inact}$ (ms)	finitions:				
$_{\text{tox}}$ (pA mV <sup>-1</sup> ) Max. conductance developed, adjusted for driving force $V^{\text{inact}}_{1/2}$ (mV) The voltage at which half-maxim $V^{\text{inact}}_{1/2}$ (mV) The rate of current decay over the $V^{\text{inact}}_{1/2}$ (mV) Observed reversal potential of the sodium current-voltage relationship $V^{\text{inact}}_{1/2}$ (mV) The rate of recovery from inactive at $V^{\text{inact}}_{1/2}$ (mV) The rate of recovery from inactive at $V^{\text{inact}}_{1/2}$ (mV) The rate of recovery from inactive at $V^{\text{inact}}_{1/2}$ (mV) The rate of recovery from inactive at $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The time constant of onset of inactive $V^{\text{inact}}_{1/2}$ (mV) The voltage at which half-maxim $V^{\text{inact}}_{1/2}$ (mV) The voltage at which half-m	<sub>×</sub> (pA)	Max. macroscopic sodium current developed		V <sup>act</sup> <sub>1/2</sub> (mV)	The voltage at which half-maxim
$_{vx}$ (pA pF <sup>-1</sup> mV <sup>-1</sup> ) Max. conductance density developed, adjusted for driving force & capacitance $_{v}$ cmV) The rate of current decay over the $_{v}$ (mV) Observed reversal potential of the sodium current-voltage relationship $_{v}$ RFI <sub>slope</sub> (ms mV <sup>-1</sup> ) The rate of recovery from inactive at I <sub>max</sub> (pA pF <sup>-1</sup> ) Membrane potential at which Max. current is developed Tau <sub>oofi</sub> (ms) The time constant of onset of ina	<sub>ax</sub> (pA pF <sup>-1</sup> )	Max. current density developed, adjusted for capacitance			The rate of current development
$_{v}$ (mV) Observed reversal potential of the sodium current-voltage relationship RFI <sub>slope</sub> (ms mV $^{-1}$ ) The rate of recovery from inactive at I <sub>max</sub> (pA pF $^{-1}$ ) Membrane potential at which Max. current is developed Tau <sub>oofi</sub> (ms) The time constant of onset of ina		Max. conductance developed, adjusted for driving force			The voltage at which half-maxim
at I <sub>max</sub> (pA pF <sup>-1</sup> ) Membrane potential at which Max. current is developed Tau <sub>oofi</sub> (ms) The time constant of onset of ina	<sub>nax</sub> (pA pF <sup>-1</sup> mV <sup>-1</sup> )	Max. conductance density developed, adjusted for driving force & capacitance		k <sup>inact</sup> (mV)	The rate of current decay over the
max (1 ) /	<sub>ev</sub> (mV)	Observed reversal potential of the sodium current-voltage relationship		RFI <sub>slope</sub> (ms mV <sup>-1</sup> )	The rate of recovery from inactive
$(mV, I_{window,peak})$ Membrane potetial a which the peak window current is achieved $G_{close}(pA pF^{-1} mV^{-1})$ This is the slope of the linear por	at I <sub>max</sub> (pA pF <sup>-1</sup> )	Membrane potential at which Max. current is developed		Tau <sub>oofi</sub> (ms)	The time constant of onset of ina
	n (mV, I <sub>window,peak</sub> )	Membrane potetial a which the peak window current is achieved		G <sub>slope</sub> (pA pF <sup>-1</sup> mV <sup>-1</sup> )	This is the slope of the linear por
	.,	·	, , , , , , , , , , , , , , , , , , , ,	Cell Capacitance (pF)	Whole cell capacitance calculate