

Supplemental Digital Content 1

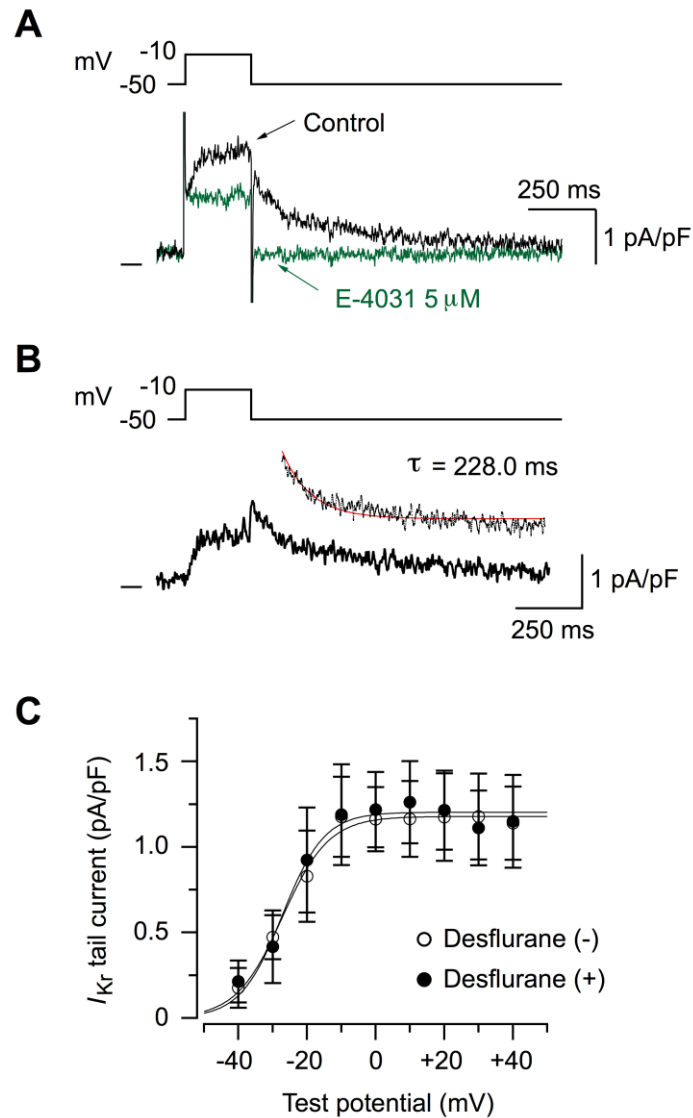


Fig. 1. Identification of rapidly activating delayed rectifier K^+ current (I_{Kr}) as an E-4031-sensitive current under the control conditions. (A) Superimposed current traces during 250-ms depolarizing steps to -10 mV applied from a holding potential of -50 mV before (Control) and 5 min after exposure to 5 μ M E-4031. (B) I_{Kr} , obtained by digitally subtracting the current trace in the presence of E-4031 from the control trace, shown in A. Inset shows the tail current fitted with a single exponential function (red) with a time constant (τ) as indicated in this example. (C) Current-voltage relationships for I_{Kr} tail currents, determined as E-4031-sensitive difference currents at test potentials of -40 through +40 mV in the absence ($n = 6$, $N = 3$) and presence ($n = 8$, $N = 3$) of desflurane. The data for I_{Kr} in the presence of desflurane (black filled circles) are the same as those shown in figure 6C (black filled circles) in the article. The smooth curves through the data points represent the least-squares fit of the Boltzmann equation. There were no significant differences in the amplitudes of I_{Kr} tail currents

measured in the absence and presence of desflurane.

Table 1. Percentage Inhibition of I_f , $I_{Ca,T}$, $I_{Ca,L}$ and I_{Ks} by Desflurane and Sevoflurane

	Desflurane		Sevoflurane ¹	
	6%	12%	3%	5%
I_f	5.4%	13.0%	14.4%	18.4%
$I_{Ca,T}$	18.9%	29.6%	31.3%	48.2%
$I_{Ca,L}$	19.8%	31.4%	30.3%	50.3%
I_{Ks}	46.8%	74.3%	37.1%	53.6%

Percentage inhibition of I_f , $I_{Ca,T}$ and $I_{Ca,L}$ was calculated using the maximal conductance for each current, while percentage inhibition of I_{Ks} was evaluated using the amplitude of I_{Ks} tail current measured upon return to -50 mV after depolarizing step to +40 mV.

$I_{Ca,L}$ = L-type Ca^{2+} current; $I_{Ca,T}$ = T-type Ca^{2+} current; I_f = hyperpolarization-activated cation current; I_{Ks} = slowly activating delayed rectifier K^+ current.

Reference

1. Kojima A, Kitagawa H, Omatsu-Kanbe M, Matsuura H, Nosaka S: Inhibitory effects of sevoflurane on pacemaking activity of sinoatrial node cells in guinea-pig heart. *Br J Pharmacol* 2012; 166:2117-35