

# Guinea Pig Ventricular IKrWT-CR01-SM

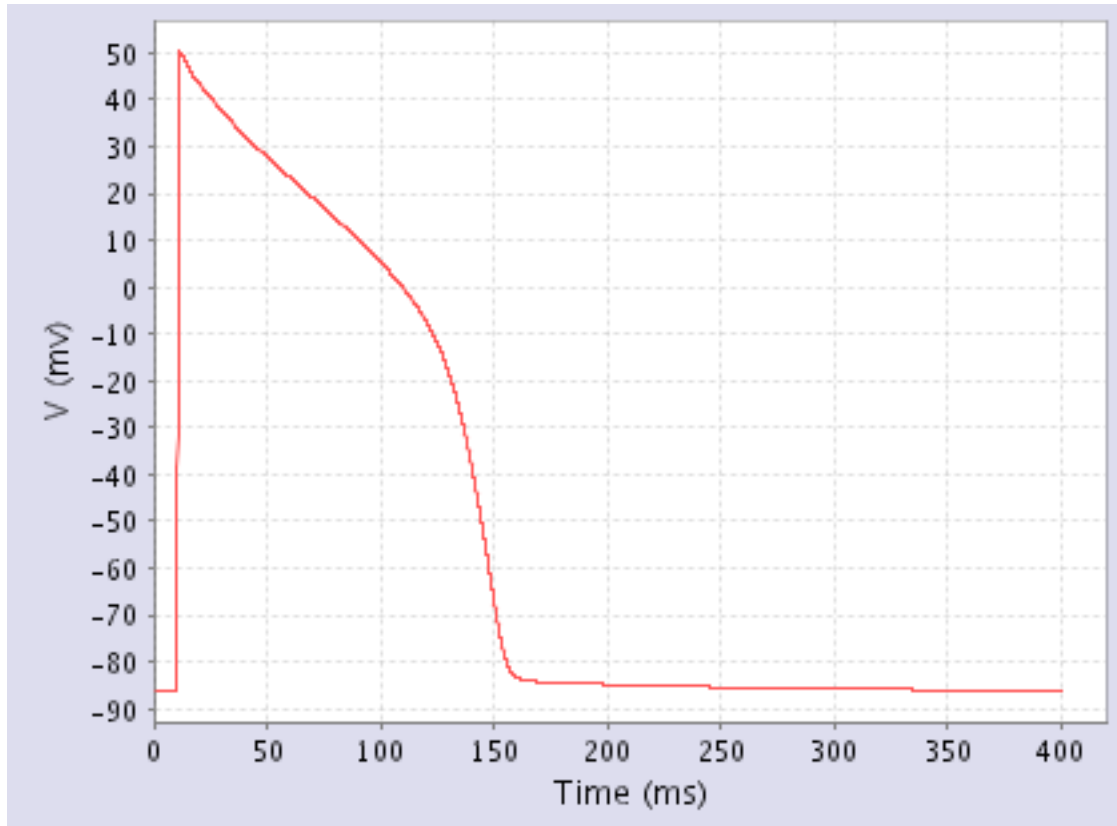
**Simucore Model Based Upon: Clancy-Rudy Markovian Model of Wild-Type IKr Channels in a Cardiac Ventricular Cell, 2001; v.**

## **1.4**

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## 1 Description



This model simulates guinea pig ventricular action potentials. The original Hodgkin-Huxley type formulation of the rapid component of the delayed-rectifier potassium current ( $I_{Kr}$ ) was replaced with the Markovian one. It includes three closed states (C3, C2 and C1), an open, conducting state (O), and a single inactivation state (I).

Abstract excerpt: "We developed Markovian models of wild-type (WT) and mutant  $I(Kr)$  channels and incorporated these models into a comprehensive model of the cardiac ventricular cell."

## 2 References

- Clancy CE, Rudy Y.  
Cellular consequences of HERG mutations in the long QT syndrome: precursors to sudden cardiac death.  
Cardiovasc Res. 2001 May;50(2):301-13.  
PMID: [11334834](https://pubmed.ncbi.nlm.nih.gov/11334834/)

### 3 Ordering

- [Order this model](#) or [request further information](#).