

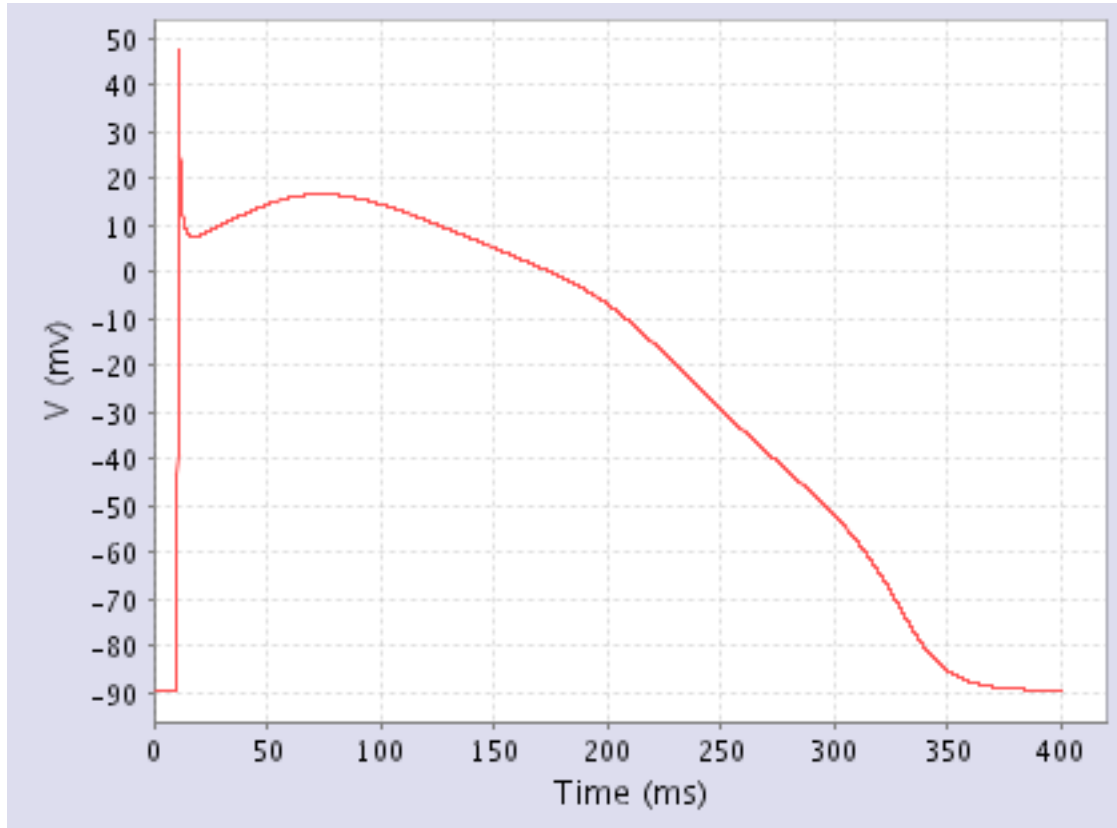
# **Bernus et al. Computationally-efficient Model of Human Ventricular Cardiac Action Potentials, 2002**

**v. 1.4**

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## 1. Description



Example action potential (BCL = 400 ms).

This model simulates human ventricular action potentials. This is a simplified version of Priebe-Beuckelmann human ventricular model. This model does not contain dynamic ion concentration calculations and replaces some gating variables with their steady-state values to improve computational efficiency.

Abstract excerpt: *"We introduce a six-variable model obtained by a reformulation of the Priebe-Beuckelmann model of a single human ventricular cell. The reformulated model is 4.9 times faster for numerical computations and it is more stable than the original model."*

## 2. References

- Bernus O, Wilders R, Zemlin CW, Verscelde H, Panfilov AV.  
A computationally efficient electrophysiological model of human ventricular cells.

Am J Physiol Heart Circ Physiol. 2002 Jun;282(6):H2296-308.  
PMID: [12003840](#)

### **3. Ordering**

- [Order](#) this model via a secure site.