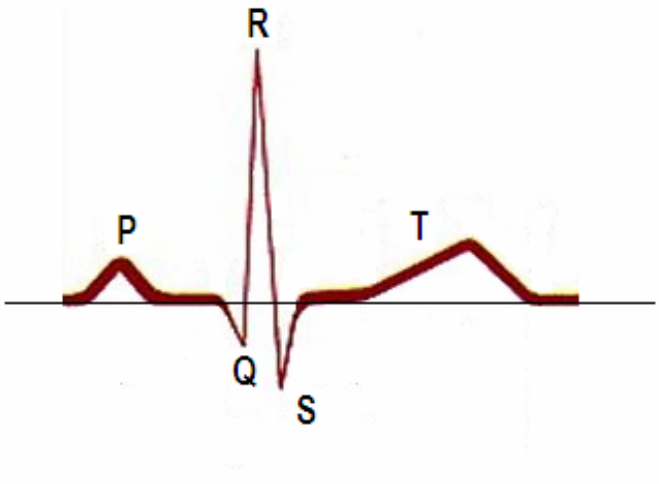
Mouse Specifics, Inc.

ECG Analysis Software



EzCG

Complete analysis of electrocardiograms is fast and easy with EzCG. This powerful software will analyze ECG signals collected in any species by any means, including recordings in dogs collected via telemetric implants, rats with a Holter monitor, and conscious neonatal mice.

EzCG automatically determines all of the PQRST interval durations, including the rate-corrected QT interval according to the user's preferred correction method. Heart rate variability is not only reported in the time domain, but also the HRV power spectrum is reported for complete characterization of the high- and low-frequency components of beat-to beat variability.

EzCG's peak detection system rapidly discerns a fast beating mouse heart or a bradycardic pig, with a thresholding algorithm that gives the user flexibility in analyzing an array of electrocardiographic signals. Individual or multiple peaks can be excluded while retaining the original data sets. Beat-by-beat and average values for the PQRST interval durations are reported graphically, and automatically written to an Excel spreadsheet. Complete analysis and comparison of ECG metrics between groups of animals within minutes. Your own data sets and reference values are readily generated and accessible.

Standard Parameters

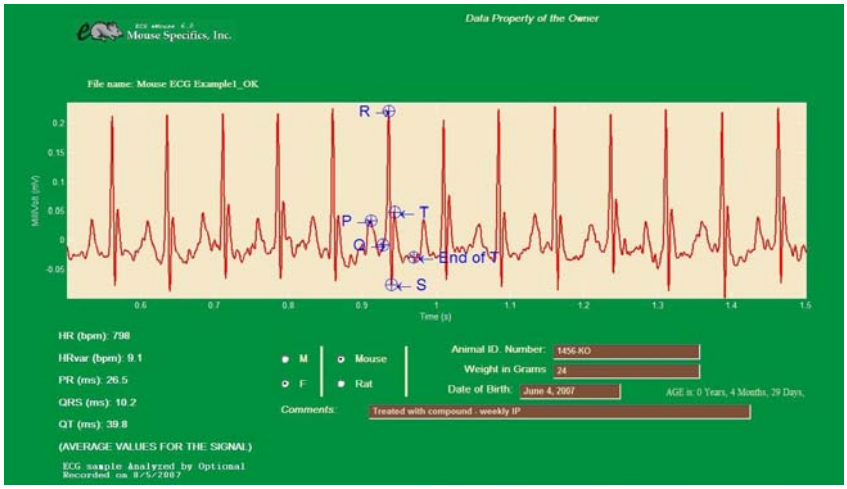
- ✓ PR
- ✓ QRS
- ✓ RR
- ✓ ST
- ✓ QT
- ✓ QTc

Time Domain Heart Rate Variability

- ✓ CV%
- ✓ SDDN
- ✓ RMSSD
- ✓ pNN"50"

Frequency Domain Heart Rate Variability

- ✓ Total Power
- ✓ Very Low Frequency
- ✓ Low Frequency
- ✓ High Frequency

Publications and Applications:

1. *Cardiac anomalies in β-glucuronidase (GUSB) null mice are corrected by non-ablative neonatal marrow transplantation.* PNAS 101:603-8; 2004.
2. *Metabolic and cardiovascular effects of hyperthyroidism are largely independent of beta-adrenergic stimulation.* Endocrinology 145:2767-2774; 2004.
3. *Identifying new mouse models of cardiovascular disease: a review of high-throughput screens of mutagenized and inbred strains.* J Appl Physiol. 94:1650-9; 2003.