

HERG (h12): 293 Lysate: sc-158600

BACKGROUND

Human ether-a-go-go related gene (HERG) encodes the pore-forming α subunit of the delayed rectifier potassium channel IKr. The HERG subunit contains six transmembrane α -helices with a re-entrant "pore-loop" between the fifth and the sixth transmembrane helices. The two N-terminal splice variants of HERG include the full-length isoform 1 α and the shorter isoform 1 β . Isoform 1 β lacks the PAS motif and deactivates at a faster rate than isoform 1 α . Residues within the C-terminal play a role in channel expression and channel gating, including voltage-dependent activation. HERG is expressed in the heart and is more abundantly expressed in the ventricles than in the atria. Mutations in the gene encoding HERG increase beat-to-beat variability and early after depolarization. These fluctuations facilitate the genesis and propagation of premature heartbeats associated with inheritable long QT syndrome.

REFERENCES

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8. Hoppe, U.C., et al. 2001. Distinct gene-specific mechanisms of arrhythmia revealed by cardiac gene transfer of two long QT disease genes, HERG and KCNE1. *Proc. Natl. Acad. Sci. USA* 98: 5335-5340.

CHROMOSOMAL LOCATION

Genetic locus: KCNH₂ (human) mapping to 7q36.1.

PRODUCT

HERG (h12): 293 Lysate represents a lysate of human HERG transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

HERG (h12): 293 Lysate is suitable as a Western Blotting positive control for human reactive HERG antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.