SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

HERG (h12): 293 Lysate: sc-158600

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 1α and the shorter isoform 1β. Isoform 1β lacks the PAS motif and deactivates at a faster rate than isoform 1α. 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

1. Heginbotham, L., et al. 1994. Mutations in the K^+ channel signature sequence. Biophys. J. 66: 1061-1067.
2. Curran, M.E., et al. 1995. A molecular basis for cardiac arrhythmia: HERG mutations cause long QT syndrome. Cell 80: 795-803.
3. Sanguinetti, M.C., et al. 1995. A mechanistic link between an inherited and an acquried cardiac arrhythmia: HERG encodes the IKr potassium channel. Cell 81: 299-307.
4. Lees-Miller, J.P., et al. 1997. Electrophysiological characterization of an alternatively processed ERG K^+ channel in mouse and human hearts. Circ. Res. 81: 719-726.
5. Doyle, D.A., et al. 1998. The structure of the potassiumm channel: molecular basis of K^+ conduction and selectivity. Science 280: 69-77.
6. Pond, A.L., et al. 2000. Expression of distinct ERG proteins in rat, mouse, and human heart. Relation to functional IKr channels. J. Biol. Chem. 275: 5997-6006.
7. Aydar, E., et al. 2001. Functional characterization of the C-terminus of the human ether-a-go-go-related gene K^+ channel (HERG). J. Physiol. 534: 1-14.
8. Hoppe, U.C., et al. 2001. Distinct gene-specific mechansims 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: $KCNH_2$ (human) mapping to 7q36.1.

PRODUCT

HERG (h12): 293 Lysate represents a lysate of human HERG transfected 293 cells and is provided as 100 µg protein in 200 µl 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 µl 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.