Taiclone®
Quality Guarantee

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

E-4031

Catalog No: tcsc3721

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
113559-13-0

Formula:
$C_{21}H_{29}Cl_2N_3O_3S$

Pathway:
Membrane Transporter/Ion Channel

Target:
Potassium Channel

Purity / Grade:
>98%

Solubility:
H2O : ≥ 50 mg/mL (105.39 mM)

Observed Molecular Weight:
474.44

Product Description

E-4031 is a benzenesulfonamide antiarrhythmic agent; blocks the ATP-sensitive potassium channel.

IC50 value:

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Target: K+ channel blocker

in vitro: Dofetilide and E-4031 induced EADs or TdP in all assays (50-83%), and the induction correlated with a significant increase in beat-to-beat variability of repolarization [1]. E-4031 (0.1 mumol/L) significantly prolonged cycle length and action potential duration, depolarized maximum diastolic potential, and reduced both the upstroke velocity of the action potential and the diastolic depolarization rate [2].

in vivo: E-4031 in doses of 0.01 and 0.1 mg/kg that can provide the plasma concentrations effectively to inhibit IKrin vitro significantly delayed the repolarization beyond the initiation of diastole, resulting in the inversion of electro-mechanical coupling, which provides an ideal proarrhythmic substrate, while the durations of left ventricular systole and diastole remained the same [3]. Bepridil and E-4031 prolonged QT interval and ARI in all LV layers, though the magnitude of prolongation was greatest in Mid, increasing the transmural ARI dispersion, particularly during bradycardia [4].