

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

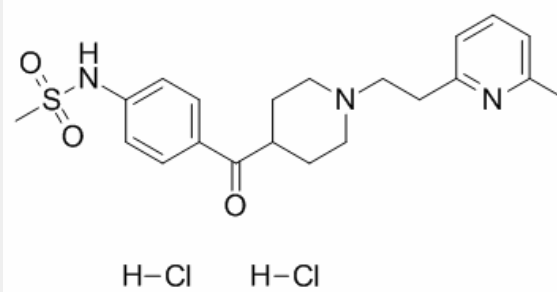
E-4031 is a benzenesulfonamide antiarrhythmic agent; blocks the ATP-sensitive potassium channel.

IC₅₀ value:

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 μ mol/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 IK_{cr} in 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].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!