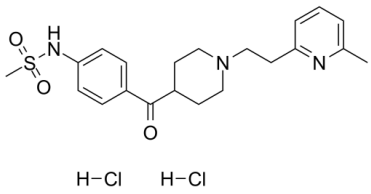
Data Sheet

Product Name:	E-4031
Cat. No.:	CS-3721
CAS No.:	113559-13-0
Molecular Formula:	$C_{21}H_{29}Cl_2N_3O_3S$
Molecular Weight:	474.44
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Solubility:	H2O : ≥ 50 mg/mL (105.39 mM)



BIOLOGICAL ACTIVITY:

E-4031 is a class III antiarrhythmic agent which selectively blocks **hERG potassium channel**.

References:

[1]. Nalos L, et al. Comparison of the IKr blockers moxifloxacin, dofetilide and E-4031 in five screening models of pro-arrhythmia reveals lack of specificity of isolated cardiomyocytes. Br J Pharmacol. 2012 Jan;165(2):467-78.

[2]. Verheijck EE, et al. Effects of delayed rectifier current blockade by E-4031 on impulse generation in single sinoatrial nodal myocytes of the rabbit. Circ Res. 1995 Apr;76(4):607-15.

[3]. Izumi-Nakaseko H, et al. Effects of selective IKr channel blockade by E-4031 on ventricular electro-mechanical relationship in the halothane-anesthetized dogs. Eur J Pharmacol. 2014 Oct 5;740:263-70.

[4]. Izumi D, et al. Effects of bepridil versus E-4031 on transmural ventricular repolarization and inducibility of ventricular tachyarrhythmias in the dog. Pacing Clin Electrophysiol. 2010 Aug;33(8):950-9.

CAIndexNames:

Methanesulfonamide, N-[4-[[1-[2-(6-methyl-2-pyridinyl)ethyl]-4-piperidinyl]carbonyl]phenyl]-, hydrochloride (1:2)

SMILES:

CS(=O)(NC1=CC=C(C(C2CCN(CCC3=NC(C)=CC=C3)CC2)=O)C=C1)=O.[H]Cl.[H]Cl

Caution: Product has not been fully validated for medical applications. For research use only.

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