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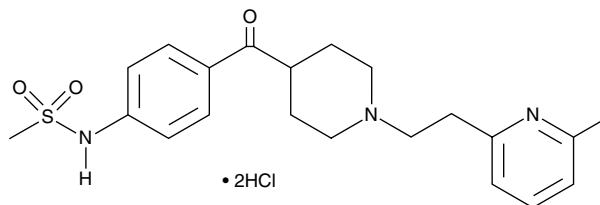
Product Information



E-4031 (hydrochloride)

Item No. 15203

CAS Registry No.: 113559-13-0
Formal Name: N-[4-[[1-[2-(6-methyl-2-pyridinyl)ethyl]-4-piperidinyl]carbonyl]phenyl]-methanesulfonamide, dihydrochloride
MF: $C_{21}H_{27}N_3O_3S \cdot 2HCl$
FW: 474.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 273 nm



Laboratory Procedures

For long term storage, we suggest that E-4031 (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

E-4031 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the E-4031 (hydrochloride) in the solvent of choice. E-4031 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of E-4031 (hydrochloride) in these solvents is approximately 25 and 0.3 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of E-4031 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of E-4031 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Voltage-gated potassium ERG channels ($K_v11.1$), encoded by the ether-a-go-go related gene, mediate the inwardly rectifying potassium (K^+) current that repolarizes myocardial cells, gut smooth muscle cells, and interstitial cells of Cajal.¹ E-4031 is a methanesulfonanilide class III antiarrhythmic agent that prolongs cardiac action potential duration by blocking ERG K^+ channels ($IC_{50} = 29$ nM).^{2,3} E-4031 inhibits the ERG1, ERG2, and ERG3 isoforms with K_D values of 99, 116, and 193 nM, respectively.⁴ However, at higher μ M concentrations E-4031 can demonstrate pro-arrhythmic activity, inducing early after depolarizations (prolonged repolarization) in cell models and torsade de pointes in animal models.⁵ E-4031 has been used to pharmacologically rescue misprocessed ERG in long QT syndrome type 2, an autosomal dominant cardiac disease associated with prolongation of the QT interval and torsade de pointes.⁶

References

1. White, E.J., Park, S.J., Foster, J.A., *et al. Am. J. Physiol. Gastrointest. Liver Physiol.* **295**(4), G691-G699 (2008).
2. Jurkiewicz, N.K. and Sanguinetti, M.C. *Circ. Res.* **72**(1), 75-83 (1993).
3. Du, L.-P., Tsai, K.-C., Li, M.-Y., *et al. Bioorg. Med. Chem. Lett.* **14**(18), 4771-4777 (2004).
4. Shi, W., Wymore, R.S., Wang, H.S., *et al. J. Neurosci.* **17**(24), 9423-9432 (1997).
5. Nalos, L., Varkevisser, R., Jonsson, M.K., *et al. Br. J. Pharmacol.* **165**(2), 467-478 (2012).
6. Ficker, E., Obejero-Paz, C.A., Zhao, S., *et al. J. Biol. Chem.* **277**(7), 4989-4998 (2002).

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