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DATASHEET

E-4031 dihydrochloride

Product overview

Name	E-4031 dihydrochloride
Cat No	HB1080
Biological action	Blocker
Purity	>98%
Description	Potent, selective K _v 11.1 channel blocker

Images



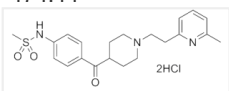
Biological Data

Biological description	Potent and selective K _v 11.1 (hERG) channel blocker (IC ₅₀ = 7.7 nM in HEK 293 cells). Delayed rectifier K ²⁺ current inhibitor. Shows antiarrhythmic actions.
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Solubility & Handling

Solubility overview	Soluble in water (100mM), and in DMSO (50mM)
Storage instructions	Room temperature (desiccate)
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	N-[4-[[1-[2-(6-Methyl-2-pyridinyl)ethyl]-4-piperidinyl]carbonyl]phenyl]methanesulfonamide dihydrochloride
Molecular Weight	474.44
Chemical structure	 The chemical structure shows a central piperidine ring. One nitrogen of the piperidine is attached to a 4-(methanesulfonamido)phenyl group. The other nitrogen is attached to a 2-(6-methyl-2-pyridinylethyl) group. The structure is labeled "2HCl".
Molecular Formula	C ₂₁ H ₂₇ N ₃ O ₃ S.2HCl
CAS Number	113559-13-0

PubChem identifier	3087190
SMILES	<chem>CC1=NC(=CC=C1)CCN2CCC(CC2)C(=O)C3=CC=C(C=C3)NS(=O)(=O)C.Cl.Cl</chem>
Source	Synthetic
InChi	InChI=1S/C21H27N3O3S.2ClH/c1-16-4-3-5-19(22-16)12-15-24-13-10-18(11-14-24)21(25)17-6-8-20(9-7-17)23-28(2,26)27;;/h3-9,18,23H,10-15H2,1-2H3;2*1H
InChiKey	ZQBNWMFBOSOLX-UHFFFAOYSA-N
MDL number	MFCD01754739
Appearance	White solid

References

Postnatal development of E-4031-sensitive potassium current in rat carotid chemoreceptor cells.

Kim I *et al* (2005) J Appl Physiol (1985) 98(4)

PubMedID [15591286](#)

Effects of the new class III antiarrhythmic drug E-4031 on myocardial contractility and electrophysiological parameters.

Wettwer E *et al* (1991) J Cardiovasc Pharmacol 17(3)

PubMedID [1711611](#)

Properties of HERG channels stably expressed in HEK 293 cells studied at physiological temperature.

Zhou Z *et al* (1998) Biophys J 74(1)

PubMedID [9449325](#)
