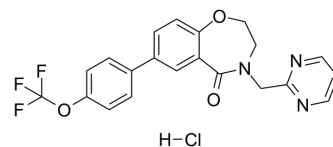


Eleclazine hydrochloride

| | |
|---------------------------|--|
| Cat. No.: | HY-16738A |
| CAS No.: | 1448754-43-5 |
| Molecular Formula: | C ₂₁ H ₁₇ ClF ₃ N ₃ O ₃ |
| Molecular Weight: | 451.83 |
| Target: | Sodium Channel; Potassium Channel |
| Pathway: | Membrane Transporter/Ion Channel |
| Storage: | 4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|--|----------------------|-------------|-------------|-------------|--------------|
| In Vitro | DMSO : 50 mg/mL (110.66 mM; Need ultrasonic) | | | | | |
| | H ₂ O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble) | | | | | |
| | Preparing Stock Solutions | Solvent | Mass | 1 mg | 5 mg | 10 mg |
| | | Concentration | | | | |
| | | 1 mM | | 2.2132 mL | 11.0661 mL | 22.1322 mL |
| 5 mM | | | 0.4426 mL | 2.2132 mL | 4.4264 mL | |
| | 10 mM | | 0.2213 mL | 1.1066 mL | 2.2132 mL | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | | |
| In Vivo | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.53 mM); Clear solution | | | | | |
| | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.53 mM); Clear solution | | | | | |
| | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.53 mM); Clear solution | | | | | |

BIOLOGICAL ACTIVITY

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|-------------------------------------|--|
| Description | Eleclazine (GS 6615) hydrochloride is a selective cardiac late sodium current inhibitor and a weak inhibitor of potassium current with IC ₅₀ value of <1 μM and approximately 14.2 μM, respectively. Eleclazine hydrochloride shows concurrent protection against autonomically induced atrial premature beats, repolarization alternans and heterogeneity, and atrial fibrillation in porcine model. Eleclazine hydrochloride can be used to research cardiac arrhythmias ^{[1][2][3]} . |
| IC₅₀ & Target | Sodium current, Potassium current ^{[1][2]} |
| In Vitro | Eleclazine inhibits sodium current in hiPSC-derived cardiomyocytes with an IC ₅₀ of 2.5 μM ^[3] . |

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Eleclazine (0.3 and 0.9 mg/kg; IV; infused over 15 minutes) reduces the incidence of epinephrine-induced ventricular premature beats and couplets, and shortens ventricular QT and atrial PTa intervals^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|-----------------|--|
| Animal Model: | Male Yorkshire pigs (35.20 ± 0.46 kg; injected with epinephrine via a jugular vein) ^[1] |
| Dosage: | 0.3 and 0.9 mg/kg |
| Administration: | IV; infused over 15 minutes |
| Result: | Reduced the incidence of epinephrine-induced ventricular premature beats and couplets by 51% (from 31.3 ± 1.91 to 15.2 ± 5.08 episodes; P = 0.038) and the incidence of 3- to 7-beat ventricular tachycardia (VT) by 56% (from 10.8 ± 3.45 to 4.7 ± 3.12 episodes; P = 0.004). Shortened ventricular QT and atrial PTa intervals by 7%, and reduced atrial repolarization alternans and heterogeneity without attenuation of the inotropic response to catecholamine. |

CUSTOMER VALIDATION

- Am J Transl Res. 2020 Jul 15;12(7):3822-3841.

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REFERENCES

- [1]. Bacic D, et al. Eleclazine, an inhibitor of the cardiac late sodium current, is superior to flecainide in suppressing catecholamine-induced ventricular tachycardia and T-wave alternans in an intact porcine model. *Heart Rhythm*. 2017 Mar;14(3):448-454.
- [2]. Potet F, Egecioglu DE, BurrIDGE PW, George AL Jr. GS-967 and Eleclazine Block Sodium Channels in Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes. *Mol Pharmacol*. 2020 Nov;98(5):540-547.
- [3]. Rajamani S et al. The novel late Na⁺ current inhibitor, GS-6615 (eleclazine) and its anti-arrhythmic effects in rabbit isolated heart preparations. *Br J Pharmacol*. 2016 Jul 23.

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

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