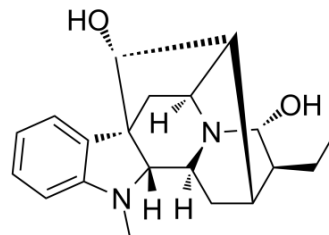


Ajmaline

| | | | |
|--------------------|---|-------|----------|
| Cat. No.: | HY-B1167 | | |
| CAS No.: | 4360-12-7 | | |
| Molecular Formula: | C ₂₀ H ₂₆ N ₂ O ₂ | | |
| Molecular Weight: | 326.43 | | |
| Target: | Sodium Channel | | |
| Pathway: | Membrane Transporter/Ion Channel | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (306.34 mM)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 3.0634 mL | 15.3172 mL | 30.6344 mL |
| | 5 mM | 0.6127 mL | 3.0634 mL | 6.1269 mL |
| | 10 mM | 0.3063 mL | 1.5317 mL | 3.0634 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (7.66 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (7.66 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ajmaline (Cardiorhythmine) is a sodium channel blocking, class 1A anti-arrhythmic agent. Ajmaline blocks HERG currents with an IC₅₀ of 1 μM in HEK cells and 42.3 μM in *Xenopus* oocytes. Ajmaline can be used for the research of the ventricular tachyarrhythmia^{[1][2]}.

In Vitro

Electrophysiological experiments are performed with human embryonic kidney (HEK) cells (whole-cell patch clamp) and *Xenopus* oocytes (double-electrode voltage clamp) expressing wild-type and mutant HERG channels. Ajmaline blocks HERG

currents with an IC_{50} of $1.0\mu M$ in HEK cells and $42.3\mu M$ in *Xenopus* oocytes^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Sparidans RW, et al. Liquid chromatographic assay with fluorescence detection to determine ajmaline in serum from patients with suspected Brugada syndrome. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2010;878(23):2168-2172.
- [2]. Kiesecker C, et al. Class Ia anti-arrhythmic drug ajmaline blocks HERG potassium channels: mode of action. *Naunyn Schmiedebergs Arch Pharmacol.* 2004;370(6):423-435.
-

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA