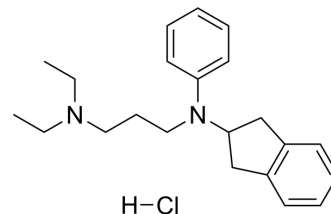


## Aprindine hydrochloride

Cat. No.:	HY-A0236A
CAS No.:	33237-74-0
Molecular Formula:	C <sub>22</sub> H <sub>31</sub> ClN <sub>2</sub>
Molecular Weight:	358.95
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Aprindine hydrochloride is a class I-b anti-arrhythmic agent and a hERG channel blocker with an IC <sub>50</sub> of 0.23 μM. Aprindine hydrochloride has inhibitory effects on Na <sup>+</sup> /Ca <sup>2+</sup> exchanger currents, which is partly responsible for their antiarrhythmic and cardioprotective effects. Aprindine hydrochloride is widely used for trial and ventricular tachyarrhythmias research.
<b>In Vitro</b>	Aprindine (3 μM) inhibits the delayed rectifier K <sup>+</sup> current (I <sub>K</sub> ) with little influence on the inward rectifier K <sup>+</sup> current (I <sub>K1</sub> ) or the Ca <sup>2+</sup> current <sup>[2]</sup> . The muscarinic acetylcholine receptor-operated K <sup>+</sup> current (I <sub>K,ACh</sub> ) was activated by the extracellular application of carbachol (1 μM) or by the intracellular loading of GTPγS. Aprindine inhibits the carbachol- and GTPγS-induced I <sub>K,ACh</sub> with the IC <sub>50</sub> values of 0.4 μM and 2.5 μM, respectively <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Y Ohmoto-Sekine, et al. Inhibitory effects of aprindine on the delayed rectifier K<sup>+</sup> current and the muscarinic acetylcholine receptor-operated K<sup>+</sup> current in guinea-pig atrial cells. *Br J Pharmacol.* 1999 Feb;126(3):751-61.
- [2]. M L De Bruin, et al . Anti-HERG activity and the risk of drug-induced arrhythmias and sudden death. *Eur Heart J.* 2005 Mar;26(6):590-7.

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

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