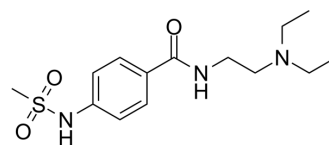


## Sematilide

<b>Cat. No.:</b>	HY-101436
<b>CAS No.:</b>	101526-83-4
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>23</sub> N <sub>3</sub> O <sub>3</sub> S
<b>Molecular Weight:</b>	313.42
<b>Target:</b>	Potassium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Sematilide (CK-1752) is a selective I <sub>Kr</sub> channel blocker. Sematilide causes a concentration-dependent inhibition of the delayed rectifier K <sup>+</sup> current (IC <sub>50</sub> =25 μM). Sematilide is a class III antiarrhythmic agent <sup>[1]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 25 μM (K <sup>+</sup> current) <sup>[1]</sup>	
<b>In Vitro</b>	Application of 10, 30, 100 and 300 μM Sematilide causes a concentration-dependent inhibition of the delayed rectifier K <sup>+</sup> current (IC <sub>50</sub> =25 μM) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
<b>In Vivo</b>	Sematilide (0.3-1.0 mg/kg, intravenously i.v.) is effective in a canine model of arrhythmia <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	<b>Animal Model:</b>	Mongrel dogs of either sex (10-18 kg body weight) <sup>[2]</sup>
	<b>Dosage:</b>	0.3, 1, 3, and 10 mg/kg
	<b>Administration:</b>	I.v. infusions
	<b>Result:</b>	Demonstrated antiarrhythmic effects at 0.3 and 3.0 mg/kg.

### REFERENCES

- [1]. Ishii Y, et al. Effects of Sematilide, a novel class III antiarrhythmic agent, on membrane currents in rabbit atrial myocytes. *Eur J Pharmacol.* 1997 Jul 23;331(2-3):295-302.
- [2]. Stanley S. Greenberg, et al. Pharmacology of Sematilide, a non-quaternary class III antiarrhythmic agent.

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

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