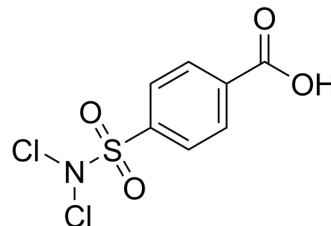


## Halazone

<b>Cat. No.:</b>	HY-B1386
<b>CAS No.:</b>	80-13-7
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>5</sub> Cl <sub>2</sub> NO <sub>4</sub> S
<b>Molecular Weight:</b>	270.09
<b>Target:</b>	Bacterial; Carbonic Anhydrase; Sodium Channel
<b>Pathway:</b>	Anti-infection; Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel
<b>Storage:</b>	4°C, sealed storage, away from moisture * The compound is unstable in solutions, freshly prepared is recommended.



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (370.25 mM; Need ultrasonic)					
		Solvent Concentration	Mass			
	<b>Preparing Stock Solutions</b>			1 mg	5 mg	10 mg
		1 mM		3.7025 mL	18.5123 mL	37.0247 mL
		5 mM		0.7405 mL	3.7025 mL	7.4049 mL
	10 mM		0.3702 mL	1.8512 mL	3.7025 mL	
Please refer to the solubility information to select the appropriate solvent.						

### BIOLOGICAL ACTIVITY

<b>Description</b>	Halazone is an atypical antimicrobial sulfonamide derivative and a carbonic anhydrase II inhibitor with a K <sub>d</sub> value of 1.45 μM. Halazone protects sodium channels from inactivation. Halazone is widely used for disinfection of drinking water <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	CA ☒
<b>In Vitro</b>	Halazone is chemically closely related to Chloramine-T, the nitrogen atom is linked with two instead of one chlorine atom and, certainly more important here, a methyl group is replaced by a carboxyl group. The effect of Halazone on the sodium current is studied in voltage-clamped single nerve fibers of the frog. The oxidant Halazone drastically inhibits inactivation <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. M Rack, et al. Effects of Some Chemical Reagents on Sodium Current Inactivation in Myelinated Nerve Fibers of the Frog. *Biophys J.* 1986 Oct;50(4):557-64.
- [2]. Rema Iyer, et al. Inhibition Profiling of Human Carbonic Anhydrase II by High-Throughput Screening of Structurally Diverse, Biologically Active Compounds. *J Biomol*

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

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