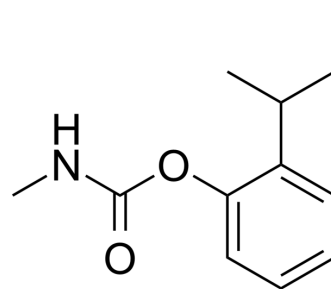


## Fenobucarb

<b>Cat. No.:</b>	HY-B0835		
<b>CAS No.:</b>	3766-81-2		
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>17</sub> NO <sub>2</sub>		
<b>Molecular Weight:</b>	207.27		
<b>Target:</b>	Apoptosis		
<b>Pathway:</b>	Apoptosis		
<b>Storage:</b>	Pure form	-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 (482.46 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.8246 mL	24.1231 mL	48.2462 mL
	5 mM	0.9649 mL	4.8246 mL	9.6493 mL
	10 mM	0.4825 mL	2.4123 mL	4.8246 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 (12.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (12.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (12.06 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Fenobucarb is a carbamate insecticide. Fenobucarb induces zebrafish developmental neurotoxicity through pathways involved in inflammation, oxidative stress, degeneration and apoptosis. Fenobucarb is a possible risk factor to cardiovascular and cerebrovascular systems in animals<sup>[1][2]</sup>.

### REFERENCES

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[1]. Xiao-Yu Zhu, et al. Fenobucarb-induced developmental neurotoxicity and mechanisms in zebrafish. *Neurotoxicology*. 2020 Jul;79:11-19.

[2]. Xiao-Yu Zhu, et al. Fenobucarb induces heart failure and cerebral hemorrhage in zebrafish. *Aquat Toxicol*. 2019 Apr;209:34-41.

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

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