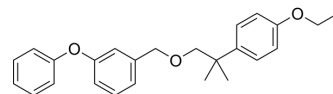


## Etofenprox

<b>Cat. No.:</b>	HY-B0816		
<b>CAS No.:</b>	80844-07-1		
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>28</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	376.49		
<b>Target:</b>	Insecticide		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (265.61 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		2.6561 mL	13.2806 mL	26.5611 mL
		<b>5 mM</b>		0.5312 mL	2.6561 mL	5.3122 mL
	<b>10 mM</b>		0.2656 mL	1.3281 mL	2.6561 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.64 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (6.64 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (6.64 mM); Clear solution</li> </ol>					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Etofenprox is an orally active non-ester pyrethroid insecticide. Etofenprox induces toxicity against many pest insects, including Diptera rather than mammalian and fish. Etofenprox has a liver tumor-promoting activity in rats accompanied with microsomal ROS production increase. Etofenprox can be used in agricultural pest control and malaria research <sup>[1][2]</sup> .
<b>In Vitro</b>	Etofenprox induces toxicity in the housefly <i>M. domestica</i> with LD <sub>50</sub> of 23 ng/fly <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Etofenprox (powder; 0.25, 0.5, and 1%; p.o.; daily for 8 wk) shows a promotion on liver tumor in male F344 rats, indicating the activation of constitutive active/androstane receptor (CAR) and enhances microsomal ROS production, resulting in the

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up-regulation of Nrf2 gene batteries<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Hemingway J. Efficacy of etofenprox against insecticide susceptible and resistant mosquito strains containing characterized resistance mechanisms. Med Vet Entomol. 1995 Oct;9(4):423-6.

[2]. Hojo Y, et al. Liver tumor promoting effect of etofenprox in rats and its possible mechanism of action. J Toxicol Sci. 2012;37(2):297-306.

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

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