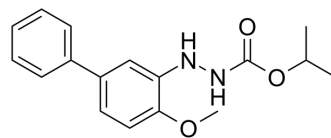


## Bifenazate

<b>Cat. No.:</b>	HY-119687		
<b>CAS No.:</b>	149877-41-8		
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>20</sub> N <sub>2</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	300.35		
<b>Target:</b>	GABA Receptor		
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 250 mg/mL (832.36 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.3294 mL	16.6472 mL	33.2945 mL
	5 mM	0.6659 mL	3.3294 mL	6.6589 mL
	10 mM	0.3329 mL	1.6647 mL	3.3294 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: ≥ 2.08 mg/mL (6.93 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.08 mg/mL (6.93 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Bifenazate is a carbamate acaricide that control 100% of mites at a concentration of 25 ppm<sup>[1]</sup>. Bifenazate is a positive allosteric modulator of GABA receptor<sup>[2]</sup>.

#### IC<sub>50</sub> & Target

GABA receptor<sup>[2]</sup>.

### REFERENCES

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[1]. Dekeyser, M.A., McDonald, P.T., and Angle, G.W., Jr. The discovery of bifenazate, a novel carbazate acaricide *Chimia* 57(11), 702-704 (2003).

[2]. Hiragaki S, et al. A novel action of highly specific acaricide; bifenazate as a synergist for a GABA-gated chloride channel of *Tetranychus urticae* [Acari: Tetranychidae]. *Neurotoxicology*. 2012 Jun;33(3):307-13.

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

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