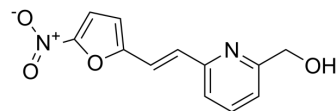


## Nifurpirinol

Cat. No.:	HY-135470		
CAS No.:	13411-16-0		
Molecular Formula:	C <sub>12</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>		
Molecular Weight:	246.22		
Target:	Antibiotic; Bacterial		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 20.83 mg/mL (84.60 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.0614 mL	20.3070 mL	40.6141 mL
	5 mM	0.8123 mL	4.0614 mL	8.1228 mL
	10 mM	0.4061 mL	2.0307 mL	4.0614 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 1 mg/mL (4.06 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Nifurpirinol (P-7138) is a nitroaromatic antibiotic and acts as a novel substrate for the bacterial nitroreductase (NTR) enzyme. Nifurpirinol is a more potent proagent compared to Metronidazole to trigger cell-ablation in nitroreductase expressing transgenic models<sup>[1]</sup>.

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

IC50: bacterial nitroreductase (NTR) enzyme<sup>[1]</sup>

### REFERENCES

[1]. David Bergemann, et al. Nifurpirinol: A more potent and reliable substrate compared to metronidazole for nitroreductase-mediated cell ablations. Wound Repair Regen

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

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