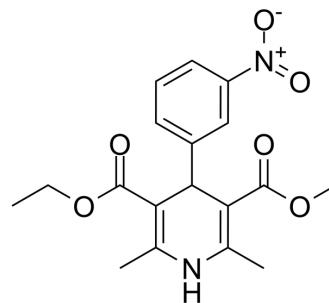


## Nitrendipine

<b>Cat. No.:</b>	HY-B0424
<b>CAS No.:</b>	39562-70-4
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> N <sub>2</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	360.36
<b>Target:</b>	Calcium Channel; Autophagy
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Autophagy
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 2 years; -20°C, 1 year (protect from light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 50 mg/mL (138.75 mM; Need ultrasonic)					
	H <sub>2</sub> O : < 0.1 mg/mL (insoluble)					
	<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>		2.7750 mL	13.8750 mL	27.7500 mL
<b>5 mM</b>			0.5550 mL	2.7750 mL	5.5500 mL	
<b>10 mM</b>		0.2775 mL	1.3875 mL	2.7750 mL		
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Nitrendipine (BAY-E-5009), an analogue of Nifedipine (HY-B0284), is a dihydropyridine calcium channel blocker with vasodilator action. Nitrendipine has antihypertensive effect <sup>[1][2][3][4]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Calcium channel <sup>[1]</sup>

### CUSTOMER VALIDATION

- Cell Calcium. March 2022, 102527.

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## REFERENCES

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- [2]. S Kazda, et al. Diuretic effect of nitrendipine contributes to its antihypertensive efficacy: a review. *J Cardiovasc Pharmacol*. 1988;12 Suppl 4:S1-5.
- [3]. M Bursztyn, et al. Nitrendipine improves glucose tolerance and deoxyglucose uptake in hypertensive rats. *Hypertension*. 1994 Jun;23(6 Pt 2):1051-3.
- [4]. He-Hui Xie, et al. Synergism of atenolol and nitrendipine on hemodynamic amelioration and organ protection in hypertensive rats. *J Hypertens*. 2005 Jan;23(1):193-201.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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