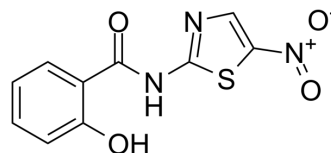


## Tizoxanide

Cat. No.:	HY-12687		
CAS No.:	173903-47-4		
Molecular Formula:	C <sub>10</sub> H <sub>7</sub> N <sub>3</sub> O <sub>4</sub> S		
Molecular Weight:	265.25		
Target:	Bacterial; HIV; Autophagy		
Pathway:	Anti-infection; Autophagy		
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 : ≥ 38 mg/mL (143.26 mM)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.7700 mL	18.8501 mL	37.7003 mL
	5 mM	0.7540 mL	3.7700 mL	7.5401 mL
	10 mM	0.3770 mL	1.8850 mL	3.7700 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Tizoxanide is the active metabolite of Nitazoxanide, which is a thiazolide anti-infective compound against anaerobic bacteria, protozoa, and a range of viruses. Tizoxanide has anti-HIV-1 activities. IC50 value: Target: Antiviral agent in vitro: Tizoxanide inhibited virus replication of all CIVs with 50% and 90% inhibitory concentrations ranging from 0.17 to 0.21 μM and from 0.60 to 0.76 μM, respectively [2]. Nitazoxanide and its primary metabolite, tizoxanide, inhibit hepatitis C virus (HCV) replication in HCV replicon systems. Interestingly, serial passage in nitazoxanide or tizoxanide resulted in increased sensitivity to alpha interferon 2b: EC(50)s and EC(90)s were reduced three- and eightfold, respectively [3].

### CUSTOMER VALIDATION

- Acta Pharm Sin B. 17 September 2021.
- Virology. 2018 May;518:398-405.

- Biomed Chromatogr. 2020 Feb;34(2):e4716.
- Research Square Preprint. 2021 Aug.
- SSRN. 2021 Feb 2.

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## REFERENCES

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- [1]. Korba BE, et al. Nitazoxanide, tizoxanide and other thiazolides are potent inhibitors of hepatitis B virus and hepatitis C virus replication. *Antiviral Res.* 2008 Jan;77(1):56-63.
- [2]. Ashton LV, et al. In Vitro Susceptibility of Canine Influenza A (H3N8) Virus to Nitazoxanide and Tizoxanide. *Vet Med Int.* 2010 Aug 12;2010. pii: 891010.
- [3]. Korba BE, et al. Potential for hepatitis C virus resistance to nitazoxanide or tizoxanide. *Antimicrob Agents Chemother.* 2008 Nov;52(11):4069-71.
- [4]. Trabattoni D, et al. Thiazolides Elicit Anti-Viral Innate Immunity and Reduce HIV Replication. *Sci Rep.* 2016 Jun 2;6:27148.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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