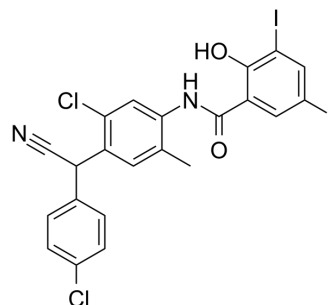


Closantel

Cat. No.:	HY-17596		
CAS No.:	57808-65-8		
Molecular Formula:	C ₂₂ H ₁₄ Cl ₂ I ₂ N ₂ O ₂		
Molecular Weight:	663		
Target:	Parasite		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 49 mg/mL (73.91 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		1.5083 mL	7.5415 mL	15.0830 mL
	5 mM		0.3017 mL	1.5083 mL	3.0166 mL
	10 mM		0.1508 mL	0.7541 mL	1.5083 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: ≥ 2.5 mg/mL (3.77 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (3.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Closantel is a halogenated salicylanilide with a potent anti-parasitic activity. Closantel is a potent and highly specific *Onchocerca volvulus* chitinase (OvCHT1) inhibitor with an IC₅₀ of 1.6 μM and a K_i of 468 nM. Closantel inhibits the *O. volvulus* L3 to L4 molt of developing^{[1][2]}.

In Vitro

Closantel, a known anthelmintic drug, is highly specific for filarial family chitinases compared to those from protozoans and the human chitinase, human chitotriosidase^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Mol Cell Biol. 2023 Mar 15;mjad017.
- Cancers. 2020 Mar 2;12(3):575.
- J Biol Chem. 2022 Aug 26;102417.
- L'UNIVERSITE GRENOBLE ALPES. 2021 Apr 13.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Amanda L Garner, et al. Design, synthesis, and biological activities of closantel analogues: structural promiscuity and its impact on *Onchocerca volvulus*. J Med Chem. 2011 Jun 9;54(11):3963-72.

[2]. Amanda L Garner, et al. Design, synthesis, and biological activities of closantel analogues: structural promiscuity and its impact on *Onchocerca volvulus*. J Med Chem. 2011 Jun 9;54(11):3963-72.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA