Oxibendazole

Cat. No.: HY-B0299

CAS No.: 20559-55-1

Molecular Formula: $C_{12}H_{15}N_3O_3$

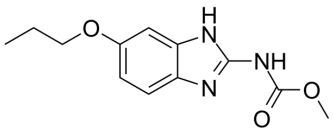
Molecular Weight: 249.27

Target: Parasite; Apoptosis

Pathway: Anti-infection; Apoptosis

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 : 5 mg/mL (20.06 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0117 mL	20.0586 mL	40.1171 mL
	5 mM	0.8023 mL	4.0117 mL	8.0234 mL
	10 mM	0.4012 mL	2.0059 mL	4.0117 mL

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

BIOLOGICAL ACTIVITY

Description

Oxibendazole is an effective benzimidazole anthelmintic and is against nema-tode infections. Oxibendazole can induces apoptosis and has anti-cancer and anti-inflammation activities[1][2].

In Vitro

Cell proliferation decreased in both porcine trophectoder (pTr) and Porcine luminal epithelial (pLE) cells in response to Oxibendazole, and we determines that this is modulated through intracellular cell signal transduction. Phosphorylation of ERK1/2, P90RSK, and S6 are downregulated by exposure to a 200 nM dose of Oxibendazole in both types of cells, while the expression of phosphorylated JNK, AKT, and P70S6K is upregulated[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

The mean size of 22Rv1 tumors in nude mice treated with Oxibendazole (25 mg/kg/day) is 47.96% smaller than that of the control mice. Treatment with Oxibendazole increases the expression of microRNA-204 (miR-204)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Patent. US20230147129A1.

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REFERENCES

[1]. Hahyun Park , et al.Oxibendazole induces apoptotic cell death in proliferating porcine trophectoderm and uterine luminal epithelial cells via mitochondria-mediated calcium disruption and breakdown of mitochondrial membrane potential. Comp Biochem Physiol

[2]. Qiaoli Chen, et al. Oxibendazole inhibits prostate cancer cell growth. Oncol Lett. 2018 Feb;15(2):2218-2226.

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