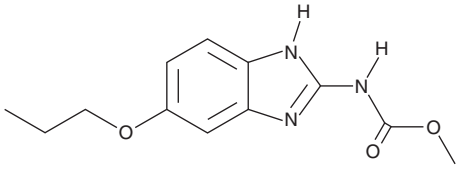
PRODUCT INFORMATION

Oxibendazole

Item No. 27365

CAS Registry No.:	20559-55-1
Formal Name:	N-(6-propoxy-1H-benzimidazol-2-yl)-carbamic acid, methyl ester
MF:	$C_{12}H_{15}N_3O_3$
FW:	249.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 247, 296 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Oxibendazole is supplied as a solid. A stock solution may be made by dissolving the oxibendazole in the solvent of choice, which should be purged with an inert gas. Oxibendazole is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of oxibendazole in these solvents is approximately 3 and 5 mg/ml, respectively. Oxibendazole is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of oxibendazole can be prepared by directly dissolving the crystalline solid in aqueous buffers. Oxibendazole is slightly soluble in PBS, pH 7.2. We do not recommend storing the aqueous solution for more than one day.

Description

Oxibendazole is a benzimidazole anthelmintic.[1] It inhibits binding of [^{3}H]mebendazole to *H. contortus* L3 larval tubulin and inhibits mammalian tubulin polymerization (IC_{50}s = 0.3 and 2.2 µM, respectively).[1] When used in combination with the anthelmintic niclosamide (Item No. 10649), oxibendazole (15 mg/kg) reduces fecal worm egg counts in dogs and cats by greater than 90% for the nematodes *T. canis*, *T. vulpis*, *A. caninum*, and *T. leonine*.[2] It also reduces fecal egg counts of strongyles in horses when administered at a dose of 10 mg/kg per day.[3] Formulations containing oxibendazole have been used in the prevention and treatment of parasitic worm infections in dogs and the treatment of parasitic worm infections in horses.

References

1. Lacey, E. Mode of action of benzimidazoles. *Parasitol. Today* **6(4),** 112-115 (1990).
2. Overgaauw, P.A.M. and Boersema, J.H. Anthelmintic efficacy of oxibendazole against some important nematodes in dogs and cats. *Vet. Q.* **20(2),** 69-72 (1998).
3. Smith, M.A., Nolan, T.J., Rieger, R., *et al.* Efficacy of major anthelmintics for reduction of fecal shedding of strongyle-type eggs in horses in the Mid-Atlantic region of the United States. *Vet. Parasitol.* **214(1-2),** 139-143 (2015).

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