

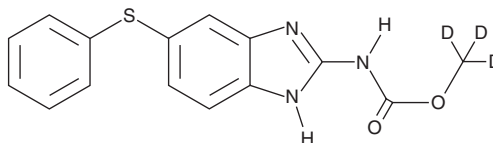
PRODUCT INFORMATION



Fenbendazole-d₃

Item No. 27842

CAS Registry No.: 1228182-47-5
Formal Name: methyl-d₃ (5-(phenylthio)-1H-benzo[d]imidazol-2-yl)carbamate
Synonym: Methyl 5-(phenylthio)-2-benzimidazolecarbamate-d₃
MF: C₁₅H₁₀D₃N₃O₂S
FW: 302.4
Chemical Purity: ≥98% (Fenbendazole)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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

Fenbendazole-d₃ is intended for use as an internal standard for the quantification of fenbendazole (Item No. 19687) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Fenbendazole-d₃ is supplied as a solid. A stock solution may be made by dissolving the fenbendazole-d₃ in the solvent of choice, which should be purged with an inert gas. Fenbendazole-d₃ is slightly soluble in methanol and DMSO.

Description

Fenbendazole is a benzimidazole anthelmintic.¹ It is active against *Giardia in vitro* (IC₅₀ = 0.3 μM). Fenbendazole (20 mg/kg) prevents infiltration of parasites into the brain in a rabbit model of *E. cuniculi* infection.² It also activates HIF-1α and prevents oxidative stress-induced death in primary neurons *in vitro*.³

References

1. Morgan, U.M., Reynoldson, J.A., and Thompson, R.C.A. Activities of several benzimidazoles and tubulin inhibitors against *Giardia* spp. *in vitro*. *Antimicrob. Agents Chemother.* **37(2)**, 328-331 (1993).
2. Suter, C., Müller-Doblies, U.U., Hatt, J.-M., *et al.* Prevention and treatment of *Encephalitozoon cuniculi* infection in rabbits with fenbendazole. *Vet. Rec.* **148(15)**, 478-480 (2001).
3. Aleyasin, H., Karuppagounder, S.S., Kumar, A., *et al.* Antihelminthic benzimidazoles are novel HIF activators that prevent oxidative neuronal death *via* binding to tubulin. *Antioxid. Redox Signal.* **22(2)**, 121-134 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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