

Product Data Sheet

Product Name: Fenbendazole-d3

Cat. No.: GC47334

Chemical Properties

Cas. No. 1228182-47-5

SMILES O=C(OC([2H])([2H])[2H])NC1=NC2=CC(SC3=CC=CC=C3)=CC=C2N1

Formula C₁₅H₁₀D₃N₃O₂S

M.Wt 302.4

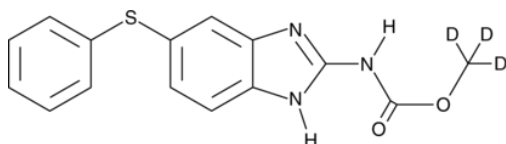
Solubility DMSO : 5 mg/mL (16.54 mM);
ultrasonic and warming and heat to
60°C); DMSO : 5 mg/mL (16.54 mM);
ultrasonic and warming and heat to
60°C)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Fenbendazole-d₃ is intended for use as an internal standard for the quantification of fenbendazole by GC- or LC-MS. 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

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.,

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

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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)

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