

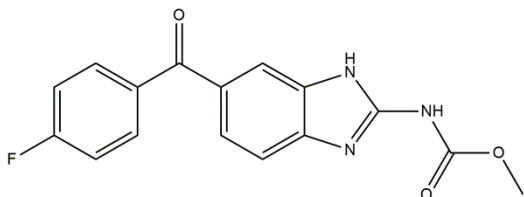
Flubendazole

12/19

ALTERNATE NAMES: methyl N-[6-(4-fluorobenzoyl)-1H-benzimidazol-2-yl]carbamate; Flumoxane; Fluvermal; Flubendazol; fluoromebendazole; Flubenol; Flubendazolium; Flumoxal; Flumoxanal; Flutelmium; NSC 313680

CATALOG #: B2955-5 5 mg
B2955-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: C₁₆H₁₂FN₃O₃

MOLECULAR WEIGHT: 313.28

CAS NUMBER: 31430-15-6

APPEARANCE: Solid

PURITY: 99.7%

SOLUBILITY: ~1 mg/ml in ethanol, DMSO and water

DESCRIPTION: Flubendazole is a benzimidazole carbamate anthelmintic agent. It eliminates larvae in a mouse model of *A. cantonensis* infection and exhibits a mean larval reduction of 100% in a *T. spiralis* infection model when administered at doses of 5 and 50 mg/kg per day, respectively. It disrupts tubulin polymerization by showing preference for binding to nematode tubulin rather than the tubulin in host. Flubendazole inhibits mammalian tubulin polymerization with an IC₅₀ of 2.5 μM. The microtubule-disrupting properties of benzimidazoles cause potential anti-cancer activity. The IC₅₀ values for inhibition of proliferation of MDA-MB-231, BT-549, MCF-7 and SK-BR-3 cells are 1.75 μM, 0.72 μM, 5.51 μM and 1.51 μM, respectively.

STORAGE TEMPERATURE: -20°C. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Maki, J., and Yanagisawa, T. A comparison of the effects of flubendazole and thiabendazole on the larvae of *Angiostrongylus cantonensis*, *Trichinella spiralis*, *Diphyllobothrium erinacei* and *Hymenolepis nana* in mice. *Parasitology* 87(Pt 3), 525-531 (1983).
2. Hou, Z.-J., Lou, X., Zhang, W., et al. Flubendazole, FDA-approved anthelmintic, targets breast cancer stem-like cells. *Oncotarget* 6(8), 6326-6340 (2015).

RELATED PRODUCTS:

Tavorole (Cat. No. B2296)
 Paclitaxel (Cat. No. 1567)
 Posaconazole (Cat. No. 9526)
 INH6 (Cat. No. B2907)
 Itraconazole (Cat. No. 1987)

DISCLAIMER: **FOR RESEARCH USE ONLY! Not to be used on humans.**