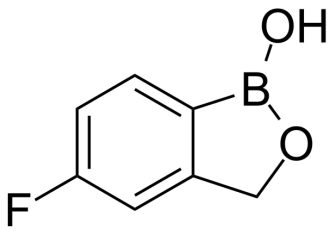
Tavaborole

Cat. No.:	HY-10980
CAS No.:	174671-46-6
Molecular Formula:	$C_7H_6BFO_2$
Molecular Weight:	151.93
Target:	Fungal; Antibiotic
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (658.20 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.5820 mL	32.9099 mL	65.8198 mL
	5 mM	1.3164 mL	6.5820 mL	13.1640 mL
	10 mM	0.6582 mL	3.2910 mL	6.5820 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (16.45 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.45 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tavaborole (AN-2690) is an antifungal agent with activity against Trichophyton species, in a topical solution formulation for the potential treatment of onychomycosis.

In Vitro

Tavaborole (AN-2690) shows an 8-fold increase in activity against C. neoformans, and an 8-fold increase in activity against A. fumigatus[1]. Tavaborole (AN-2690) obviously inhibit the cells expressing GlLeuRS-D444A, but has no effect on the cells expressing GlLeuRS and GlLeuRS-D444E[2].

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

CUSTOMER VALIDATION

- AMB Express. 2022 Dec 1;12(1):151.

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REFERENCES

[1]. Baker SJ, et al. Discovery of a new boron-containing antifungal agent, 5-fluoro-1,3-dihydro-1-hydroxy-2,1- benzoxaborole (AN2690), for the potential treatment of onychomycosis. J Med Chem. 2006 Jul 27;49(15):4447-50.

[2]. Zhou XL, et al. Post-transfer editing by a eukaryotic leucyl-tRNA synthetase resistant to the broad-spectrum drug AN2690. Biochem J. 2010 Sep 1;430(2):325-33.

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