AN7973

Cat. No.: HY-128337

CAS No.: 1620899-32-2

Molecular Formula: $C_{19}H_{17}BClN_3O_3$

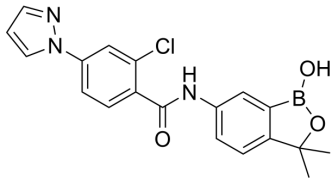
Molecular Weight: 381.62

Target: Parasite

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (327.55 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6204 mL	13.1020 mL	26.2041 mL
5 mM	0.5241 mL	2.6204 mL	5.2408 mL
10 mM	0.2620 mL	1.3102 mL	2.6204 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: ≥ 2.08 mg/mL (5.45 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.45 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AN7973 is the 6-carboxamide benzoxaborole, blocks intracellular parasite development and inhibits Cryptosporidium growth. AN7973 is orally active, possesses favorable safety, stability, and PK parameters, and is an exciting agent candidate for treating cryptosporidiosis.

In Vivo

AN7973 (oral gavage; 5-25 mg/kg; once daily) is efficacious in murine models of both acute and chronic infection by rapidly eliminating C.parvum in vivo[1].

AN7973 (oral gavage; 5 mg/kg, 10 mg/kg, 6.67 mg/kg; once daily, twice daily, three times daily) reduces C.parvum fecal

shedding, diarrhea, and dehydration in a neonatal calf model (closely mimics that seen in infants) of cryptosporidiosis[1]. AN7973 possesses favorable safety, stability, and PK parameters as an exciting drug candidate for treating cryptosporidiosis [1].

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

Animal Model:	Four to five weeks NOD scid gamma mice (NOD.Cg-Prkdcscid Il2rgtm1Wjl/SzJ)(NSG) with chronic Cryptosporidium infection[1]
Dosage:	10 mg/kg, 20 mg/kg
Administration:	Oral gavage; 10 mg/kg, 20 mg/kg; once daily
Result:	Reduced parasite shedding by >99% at a dose of 25 mg/kg and by >90% at a dose of 10 mg/kg administration.

Animal Model:	Four-week-old female C57BL/6 IFN-$\gamma^{-/-}$ mice with acute Cryptosporidium infection[1]
Dosage:	5 mg/kg, 10 mg/kg, 25 mg/kg
Administration:	Oral gavage; 5 mg/kg, 10 mg/kg, 25 mg/kg; once dairy
Result:	Eliminated C.parvums at a dose-dependent efficacy.

Animal Model:	One-day-old to two-day-old Holstein bull Neonatal calf model of cryptosporidiosis[1]
Dosage:	5 mg/kg, 10 mg/kg, 6.67 mg/kg
Administration:	Oral gavage; 5 mg/kg, 10 mg/kg, 6.67 mg/kg; once daily, twice daily, three times daily
Result:	Curtailed parasite shedding and completely eliminated diarrhea.

REFERENCES

[1]. 1. Lunde CS, et al. Identification of a potent benzoxaborole drug candidate for treating cryptosporidiosis. Nat Commun. 2019 Jun 27; 10(1):2816.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA