



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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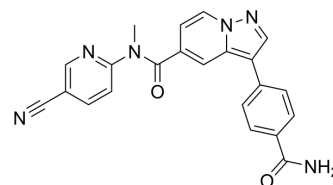
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## KDU731

<b>Cat. No.:</b>	HY-103583		
<b>CAS No.:</b>	1610610-48-4		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>16</sub> N <sub>6</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	396.4		
<b>Target:</b>	PI4K; Parasite		
<b>Pathway:</b>	PI3K/Akt/mTOR; Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 83.33 mg/mL (210.22 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5227 mL	12.6135 mL	25.2270 mL
	5 mM	0.5045 mL	2.5227 mL	5.0454 mL
	10 mM	0.2523 mL	1.2614 mL	2.5227 mL

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

### BIOLOGICAL ACTIVITY

#### Description

KDU731, an orally active *C. parvum* PI4K inhibitor with an IC<sub>50</sub> value of 25 nM, blocks Cryptosporidium infection in vitro and in vivo<sup>[1][2]</sup>. KDU731 is a promising agent candidate for the treatment of diarrhea caused by Cryptosporidium and meets a broad range of safety<sup>[2]</sup>.

#### IC<sub>50</sub> & Target

PI4K

#### In Vivo

KDU731 (orally administration; 7 or 10mg/kg; 16 days) has potent activity against Cryptosporidium in immunocompromised IFN-γ KO mice and dramatically reduces oocyst shedding<sup>[2]</sup>.

KDU731 (orally administration; 5 mg/kg; every 12 hours for 7 days) is tolerated in all calves, and treated calves shed significantly fewer oocysts than vehicle treated calves in their stool<sup>[2]</sup>.

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

Animal Model:	6-8 week old C57BL/6 IFN-γ-knockout mice with 10,000 oocysts <sup>[1]</sup>
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Dosage:	7 or 10 mg/kg
Administration:	Orally administration; 7 or 10 mg/kg; 16 days
Result:	Resulted in significant reduction of oocyst shedding.
Animal Model:	Neonatal calves with $5 \times 10^7$ oocysts <sup>[1]</sup>
Dosage:	5 mg/kg
Administration:	Orally administration; 5 mg/kg; every 12 hours for 7 days
Result:	Resulted in significant reduction of oocyst shedding in treated calves in their stool.

## REFERENCES

- [1]. Ward HD, et al. New Tools for Cryptosporidium Lead to New Hope for Cryptosporidiosis. Trends Parasitol. 2017 Sep;33(9):662-664.
- [2]. Manjunatha UH, et al. A Cryptosporidium PI(4)K inhibitor is a drug candidate for cryptosporidiosis. Nature. 2017 Jun 15;546(7658):376-380.

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

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