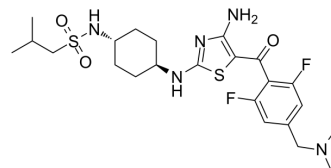


CRK12-IN-2

Cat. No.:	HY-143322
CAS No.:	1990479-17-8
Molecular Formula:	C ₂₃ H ₃₃ F ₂ N ₅ O ₃ S ₂
Molecular Weight:	529.67
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CRK12-IN-2 (compound 2) is an inhibitor of CRK12. CRK12-IN-2 shows potency against <i>Trypanosoma congolense</i> and <i>Trypanosoma vivax</i> with EC ₅₀ values of 3.2 and 0.08 nM. CRK12-IN-2 can be used for the research of animal trypanosomiasis [1].		
In Vivo	CRK12-IN-2 (10 mg/kg; s.c. once daily for 4 days) effectively cures mice with <i>T. congolense</i> - and <i>T. vivax</i> -infection ^[1] . Pharmacokinetic Properties of CRK12-IN-2 in Cattle ^[1] .		
		Cattle IV 2 mg/kg	Cattle IM 10 mg/kg
	C _{1b} (mL/min/kg)	15±5	
	V _{dss} (L/kg)	2.3±0.6	
	half-life (h)	4±2	
	AUC _{0-∞} (ng·min/mL)	140000±40000	500000±30000
	C _{max} (ng/mL)		1700±800
	T _{max} (h)		1.3±0.6
	F (%)		73±6
MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
Animal Model:	Mice with <i>T. congolense</i> and <i>T. vivax</i> infection ^[1]		
Dosage:	10 mg/kg		

Administration:	Subcutaneous injection; 10 mg/kg once daily; for 4 days
Result:	Fully cured both <i>T. congolense</i> - and <i>T. vivax</i> -infected mice for 4 days at a dose of 10 mg/kg.

REFERENCES

[1]. Smith A, et al. Repositioning of a Diaminothiazole Series Confirmed to Target the Cyclin-Dependent Kinase CRK12 for Use in the Treatment of African Animal Trypanosomiasis. *J Med Chem.* 2022 Apr 14;65(7):5606-5624.

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

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