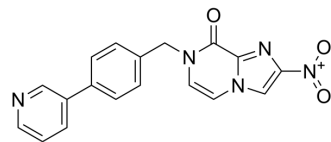


Anti-infective agent 5

Cat. No.:	HY-151485
CAS No.:	2738381-47-8
Molecular Formula:	C ₁₈ H ₁₃ N ₅ O ₃
Molecular Weight:	347.33
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Anti-infective agent 5 (compound 74) is an orally active inhibitor of <i>Trypanosoma cruzi</i> with an IC ₅₀ value of 0.10 μM. Anti-infective agent 5 effectively reduces parasite burden in vivo. Anti-infective agent 5 can be used for the research of infection ^[1] .								
IC₅₀ & Target	Trypanosoma								
In Vitro	<p>Anti-infective agent 5 (0.1 nM-100 μM; 48 h) shows antitrypanosomal activity against <i>T. cruzi</i> amastigotes in 3T3 cells with an IC₅₀ value of 0.10 μM^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[1]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>3T3 cell line</td> </tr> <tr> <td>Concentration:</td> <td>0.1 nM-100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 hours</td> </tr> <tr> <td>Result:</td> <td>Showed activity against 3T3 cells with an CC₅₀ value of 37 μM.</td> </tr> </table>	Cell Line:	3T3 cell line	Concentration:	0.1 nM-100 μM	Incubation Time:	48 hours	Result:	Showed activity against 3T3 cells with an CC ₅₀ value of 37 μM.
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Result:	Showed activity against 3T3 cells with an CC ₅₀ value of 37 μM.								
In Vivo	<p>Anti-infective agent 5 (50 mg/kg; p.o. twice daily for five days) reduces the parasite burden in bioluminescent <i>T. cruzi</i> mouse model^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>BALB/c mice with bioluminescent <i>T. cruzi</i> CL Brener parasites infection^[1]</td> </tr> <tr> <td>Dosage:</td> <td>50 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral gavage; 50 mg/kg twice daily for five days</td> </tr> <tr> <td>Result:</td> <td>Showed a reduction in parasite burden of >98-99% with no significant adverse effects observed in mice.</td> </tr> </table>	Animal Model:	BALB/c mice with bioluminescent <i>T. cruzi</i> CL Brener parasites infection ^[1]	Dosage:	50 mg/kg	Administration:	Oral gavage; 50 mg/kg twice daily for five days	Result:	Showed a reduction in parasite burden of >98-99% with no significant adverse effects observed in mice.
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REFERENCES

[1]. Ang CW, et al. Nitroimidazopyrazinones with Oral Activity against Tuberculosis and Chagas Disease in Mouse Models of Infection. J Med Chem. 2022 Sep 16.

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

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