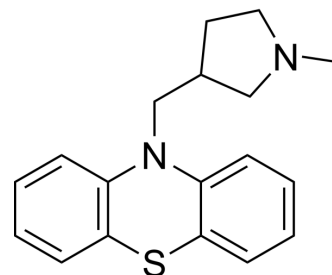


Methdilazine

Cat. No.:	HY-B1690
CAS No.:	1982-37-2
Molecular Formula:	C ₁₈ H ₂₀ N ₂ S
Molecular Weight:	296.43
Target:	Antibiotic; Bacterial; Histamine Receptor
Pathway:	Anti-infection; GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methdilazine is an orally active antibiotic (histamine antagonist). Methdilazine can inhibit various mycobacterium with MIC values at 5-15 µg/mL in vitro and in vivo, which can be used for the research of infectious diseases ^{[1][2]} .								
IC₅₀ & Target	MIC: 5-15 µg/mL (mycobacterium)								
In Vitro	<p>Methdilazine (0-20 µg/mL approximately, 18 h) inhibits kinds of mycobacterium with MIC values ranging from 5 µg/mL to 15 µg/mL^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>mycobacterium: M. smegmatis 798/1546, M., fortuitum 1529, M. scrofulaceum 1323, M. gordonae 1324, M. rnarinum 50, M., flavescens 1541, M. terrae 1450, M. tuberculosis, H₃₇Ra 16, H₃₇Rv 16, K1, K2, ICRC bacillus, 'Skinsnes' bacillus.</td> </tr> <tr> <td>Concentration:</td> <td>0-20 µg/mL approximately</td> </tr> <tr> <td>Incubation Time:</td> <td>18 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited mycobacterium with MIC values ranging from 5 µg/mL to 15 µg/mL.</td> </tr> </table>	Cell Line:	mycobacterium: M. smegmatis 798/1546, M., fortuitum 1529, M. scrofulaceum 1323, M. gordonae 1324, M. rnarinum 50, M., flavescens 1541, M. terrae 1450, M. tuberculosis, H ₃₇ Ra 16, H ₃₇ Rv 16, K1, K2, ICRC bacillus, 'Skinsnes' bacillus.	Concentration:	0-20 µg/mL approximately	Incubation Time:	18 h	Result:	Inhibited mycobacterium with MIC values ranging from 5 µg/mL to 15 µg/mL.
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Result:	Inhibited mycobacterium with MIC values ranging from 5 µg/mL to 15 µg/mL.								
In Vivo	<p>Methdilazine (Intraperitoneal injection, 10 µg/gm body wt/day, 6 weeks) is antagonistic to mycobacteria in H₃₇Rv infected mice^[1].</p> <p>Methdilazine (Oral administration, 10 mg/kg per day, 28 days) improves survival of Mycobacterium Tuberculosis (Mtb) H37Rv infected mice^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>H₃₇Rv infected mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>10 µg/gm body wt/day, 6 weeks</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection</td> </tr> <tr> <td>Result:</td> <td>Displayed an anti-mycobacterial activity to mycobacteria.</td> </tr> </table>	Animal Model:	H ₃₇ Rv infected mice ^[1]	Dosage:	10 µg/gm body wt/day, 6 weeks	Administration:	Intraperitoneal injection	Result:	Displayed an anti-mycobacterial activity to mycobacteria.
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Animal Model:	Mycobacterium Tuberculosis (Mtb) H ₃₇ Rv infected Swiss albino male mice ^[2]
Dosage:	10 mg/kg per day for 28 days
Administration:	Oral administration
Result:	Increased surviving time to 28 days with no sign of disease, showed 71.42% survival.

REFERENCES

[1]. A N Chakrabarty, et al. Antimycobacterial activity of methdilazine (Md), an antimicrobial phenothiazine. APMIS. 1993 Jun;101(6):449-54.

[2]. Noton K Dutta, et al. Activity of the phenothiazine methdilazine alone or in combination with isoniazid or streptomycin against Mycobacterium tuberculosis in mice. J Med Microbiol. 2009 Dec;58(Pt 12):1667-1668.

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

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