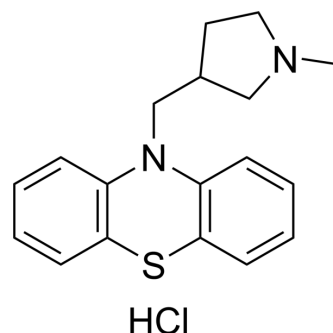


Methdilazine hydrochloride

Cat. No.:	HY-B1690A
CAS No.:	1229-35-2
Molecular Formula:	C ₁₈ H ₂₁ ClN ₂ S
Molecular Weight:	332.89
Target:	Antibiotic; Bacterial; Histamine Receptor
Pathway:	Anti-infection; GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Methdilazine hydrochloride is an orally active antibiotic (histamine antagonist). Methdilazine hydrochloride 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]} .								
In Vitro	<p>Methdilazine hydrochloride (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>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:	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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In Vivo	<p>Methdilazine hydrochloride (Intraperitoneal injection, 10 µg/gm body wt/day, 6 weeks) is antagonistic to mycobacteria in H₃₇Rv infected mice^[1].</p> <p>Methdilazine hydrochloride (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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