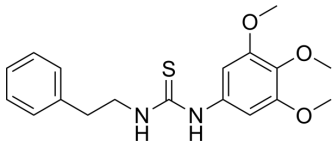
Antibacterial agent 121

Cat. No.:	HY-151354
CAS No.:	474099-18-8
Molecular Formula:	$C_{18}H_{22}N_2O_3S$
Molecular Weight:	346.44
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antibacterial agent 121 (Compound 10) is an antibacterial agent. Antibacterial agent 121 shows anti-mycobacterial and anti-inflammatory activities and can be used in Tuberculosis (TB) research[1].

In Vitro

Antibacterial agent 121 (0.2-200 μM; 24 h) inhibits M. tuberculosis H37Rv growth in bacterial culture[1].
Antibacterial agent 121 (0-200 μM; 24 h) inhibits NO production in LPS-stimulated RAW 264.7 cell cultures with an IC_{50} value of 4.1 μM[1].
Antibacterial agent 121 (6.25-200 μM, 24 h) inhibits TNF-α and IL-1β production in LPS-stimulated macrophages[1].
Antibacterial agent 121 (25-100 μM, 4 d) inhibits M. tuberculosis M299 with an MIC_{50} value of 24.8 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	M. tuberculosis H37Rv
Concentration:	0.2-200 μM
Incubation Time:	24 hours
Result:	Inhibited Mtb H37Rv growth with MIC_{50} of 8.6 μM.

Cell Viability Assay[1]

Cell Line:	RAW 264.7 macrophages and J774A.1 macrophages
Concentration:	6.25-200 μM
Incubation Time:	24 hours
Result:	Showed IC_{50} values of 15.3 μM and 28.4 μM for TNF-α and IL-1β production, respectively.

REFERENCES

[1]. Sanderson Dias Calixto, et al. Antimycobacterial and anti-inflammatory activities of thiourea derivatives focusing on treatment approaches for severe pulmonary tuberculosis. Bioorg Med Chem. 2022 Jan 1;53:116506.

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

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