



NITD-349

Catalog No: tcsc0032639

且	Available Sizes
Size	: 5mg
Size	: 10mg
Size	: 50mg
Size	: 100mg
	Specifications
CAS 1473	No: 3450-62-2
	nula: I ₂₀ F ₂ N ₂ O
	iway: infection
Targ	
Puri > 989	ty / Grade: %
	bility: O : ≥ 310 mg/mL (1011.91 mM)
Obse	erved Molecular Weight:

Product Description

306.35

NITD-349 is an **MmpL3** inhibitor that shows highly potent anti-mycobacterial activity with MIC_{50} of 23 nM against virulent *Mycobacterium tuberculosis*





H37Rv.

IC50 & Target: MIC50: 23 nM (Mycobacterium tuberculosis H37Rv)[1]

In Vitro: NITD-349 shows bactericidal activity against *in vitro* replicating *Mycobacterium tuberculosis* (Mtb) and also are active against intramacrophage Mtb. Kill kinetic analysis of these compounds showed both concentration- and time-dependent killing of Mtb cells with 3- to 4-log colony-forming unit (CFU) reductionwithin 3 days of treatment. The cidal activity profile of NITD-304 is similar to that of isoniazid for which rapid killing is noticed at concentrations greater than 0.2 μ M. The MIC activity of NITD349 against various MDR Mtb strains ranges from 0.04 to 0.08 μ M. NITD-349 shows high permeability and moderate *in vitro* metabolic clearance in mouse and human hepatic microsomes^[1].

In Vivo: In the acute murine efficacy modelNITD-349 shows favorable oral pharmacokinetic (PK) properties in rodents and dogs and are efficacious in mouse models of both acute and chronic *Mycobacterium tuberculosis* infection. In the acute murine efficacy model, treatment of mice with NITD-349 at doses of 12.5 and 50 mg/kg resulted in 0.9- and 3.4-log CFU reduction in lung tissue. In an established infection mouse model, after 2 weeks of treatment, the efficacy of NITD-349 is comparable to the first-line TB drug rifampicin and is better than ethambutol. Four weeks of treatment at 100 mg/kg with NITD-349 results in 2.38-log CFU reductions^[1].

All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!