Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Pretomanid

Catalog No: tcsc3090

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
187235-37-6

Formula:
$C_{14}H_{12}F_3N_3O_5$

Pathway:
Anti-infection

Target:
Bacterial

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 33 mg/mL (91.86 mM)

Alternative Names:
PA-824;(S)-PA 824

Observed Molecular Weight:
359.26

Product Description

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Pretomanid (PA-824) is a small-molecule nitroimidazopyran drug candidate for the treatment of tuberculosis; the MIC values of PA-824 against a panel of MTB pan-sensitive and rifampin mono-resistant clinical isolates ranged from 0.015 to 0.25 ug/ml.

IC50 value: 0.015 to 0.25 ug/ml (MICs) [1]

IC50 & Target: Tuberculosis.

In Vitro: Pretomanid (PA-824) exhibited a sub-micromolar minimal inhibitory concentration (MIC) against MTB, Although Pretomanid (PA-824) was not the most potent NAP against cultured MTB clinical isolates, it was the most active in infected mice when orally administered at 25 mg/kg. This indicated that Pretomanid (PA-824) might possess more desirable pharmacokinetic properties than the other more potent NAP compounds that we tested. Further studies in mice at 25, 50 and 100 mg kg-1 Pretomanid (PA-824) daily for 10 days resulted in reductions of mycobacterial burden in both spleen and lung tissues that were comparable to that of INH at 25 mg kg -1 [1]. Pretomanid (PA-824) showed significant activity at 2, 10, and 50 microg/ml, similar to that of metronidazole, in a dose-dependent manner. Pretomanid (PA-824) at 100 mg/kg in cyclodextrin/lecithin was as active as moxifloxacin at 100 mg/kg and isoniazid at 25 mg/kg and was slightly more active than rifampin at 20 mg/kg. Long-term treatment with Pretomanid (PA-824) at 100 mg/kg in cyclodextrin/lecithin reduced the bacterial load below 500 CFU in the lungs and spleen [2]. Pretomanid (PA-824) has no effect on the viability of M. leprae in all three models, consistent with the lack of the nitroimidazo-oxazine-specific nitroreductase, encoded by Rv3547 in the M. leprae genome, which is essential for activation of this molecule [3].