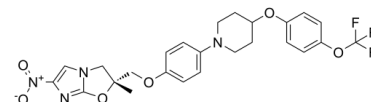


Data Sheet

Product Name:	Delamanid
Cat. No.:	CS-5866
CAS No.:	681492-22-8
Molecular Formula:	C ₂₅ H ₂₅ F ₃ N ₄ O ₆
Molecular Weight:	534.48
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	H ₂ O : < 0.1 mg/mL (insoluble); DMSO : ≥ 50 mg/mL (93.55 mM)



BIOLOGICAL ACTIVITY:

Delamanid, a newer **mycobacterial cell wall synthesis** inhibitor, inhibits the synthesis of mucolic acids^[1]. **In Vitro:** Delamanid inhibits the synthesis of mucolic acids, crucial component of the cell wall of the Mycobacterium tuberculosis complex^[1].

Delamanid shows more potent antibacterial activity against drug-susceptible and drug-resistant strains of M. tuberculosis^[2].

Delamanid does not affect rifampin, pyrazinamide, and isoniazid exposure; the ethambutol AUC_τ and C_{max} values are about 25% higher with delamanid coadministration^[3].

In Vivo: Delamanid (orally administration; 30 mg/kg; 5 days) results in sterile cures in a mouse model of VL^[4].

References:

- [1]. Sotgiu G et al. Delamanid (OPC-67683) for treatment of multi-drug-resistant tuberculosis. *Expert Rev Anti Infect Ther.* 2015 Mar;13(3):305-15.
- [2]. Xavier AS et al. Delamanid: A new armor in combating drug-resistant tuberculosis. *J Pharmacol Pharmacother.* 2014 Jul;5(3):222-4
- [3]. Mallikaarjun S et al. Delamanid Coadministered with Antiretroviral Drugs or Antituberculosis Drugs Shows No Clinically Relevant Drug-Drug Interactions in Healthy Subjects. *Antimicrob Agents Chemother.* 2016 Sep 23;60(10):5976-85.
- [4]. Patterson S et al. The anti-tubercular drug delamanid as a potential oral treatment for visceral leishmaniasis. *Elife.* 2016 May 24;5.

CAIndexNames:

Imidazo[2,1-b]oxazole, 2,3-dihydro-2-methyl-6-nitro-2-[[4-[4-(trifluoromethoxy)phenoxy]-1-piperidinyl]phenoxy]methyl]-, (2R)-

SMILES:

FC(F)(F)OC1=CC=C(OC2CCN(C3=CC=C(OC[C@@]4(C)CN5C(O4)=NC([N+](O-)=O)=C5)C=C3)CC2)C=C1

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

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