

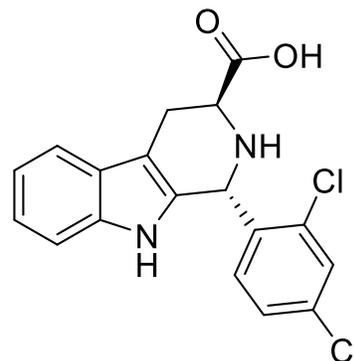
MMV008138 (1*R*,3*S*) (IspD Inhibitor)

Catalog number: B-4103

Molecular Formula: C₁₈H₁₄Cl₂N₂O₂

MW: 361.22

CAS: 1217513-24-0



Alternate Name: (1*R*,3*S*)-1-(2,4-dichlorophenyl)-2,3,4,9-tetrahydro-1*H*-pyrido[3,4-*b*]indole-3-carboxylic acid

Solubility: DMSO, MeOH or EtOH

Storage and Handling: Store dry at 4 °C. Stock solutions should be stored frozen (-20 °C or below).

Background: Compounds that target isoprenoid biosynthesis in *Plasmodium falciparum* could be a welcome addition to malaria chemotherapy, since the methylerythritol phosphate (MEP) pathway used by the parasite is not present in humans. MMV008138 targets the apicoplast of *P. falciparum* and that its target in the MEP pathway differs from that of *Fosmidomycin*. The active stereoisomer of MMV008138 was (1*R*,3*S*)-configured which was found to be crucial for inhibition of the parasite growth as MEP pathway-targeting antimalarial agent. Recently some researchers have claimed that they identified the molecular target of MMV008138 as IspD, the third enzyme of the MEP pathway.

References: 1) Yao, Zhong-Ke, Krai, Priscilla M. et al. "Determination of the active stereoisomer of the MEP pathway-targeting antimalarial agent MMV008138, and initial structure-activity studies." *Bioorganic & Medicinal Chemistry Letter*, 2015, 25, 1515-151. 2) Wu, W., Herrera, Z, Ebert, D. Baska, K.; Cho, S.H.; Derisi, J. I.; Yeh, E. "A Chemical Rescue Screen Identifies a Plasmodium falciparum Apicoplast Inhibitor Targeting MEP Isoprenoid Precursor Biosynthesis" *Antimicrob. Agents Chemother.* 2015, 59, 356-364.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

