

Product Data Sheet

Product Name: DO264
Cat. No.: GC45995

Chemical Properties

Cas. No. 2301866-59-9

SMILES S=C(NC1CCN(C2=C(Cl)C(OC3=CC=C(OC(F)(F)F)C=C3Cl)=CC=N2)CC1)NC4=CC=CC=N4

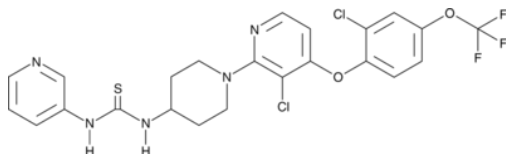
Formula C₂₃H₂₀Cl₂F₃N₅O₂S M.Wt 558.4

Solubility Soluble in DMSO Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

DO264 is an inhibitor of α/β -hydrolase domain-containing protein 12 (ABHD12; IC₅₀ = 11 nM).¹ It inhibits ABHD12-dependent hydrolysis of lysophosphatidylserine (lyso-PS) in mouse brain membrane lysates (IC₅₀ = 2.8 nM) and human THP-1 cells.² DO264 increases levels of chemokine (C-C motif) ligand 3 (CCL3), CCL4, TNF- α , and IL-1 β in M1-polarized THP-1 macrophages.¹ In vivo, DO264 (30 mg/kg per day for four weeks) increases levels of 1-stearoyl-2-hydroxy-sn-glycero-3-PS, 1-arachidonoyl-2-hydroxy-sn-glycero-3-PS, 1-docosanoyl-2-hydroxy-sn-glycero-3-PS, 1-stearoyl-2-arachidonoyl-sn-glycero-3-PS, and 1-oleoyl-2-arachidonoyl-sn-glycero-3-PS in mouse brain.² It increases levels of CCL2, CCL3, and CCL5 in bronchoalveolar lavage fluid (BALF) and decreases survival in a mouse model of infection with lymphocytic choriomeningitis virus (LCMV) clone 13 when administered at a dose of 30 mg/kg.

[1. Ogasawara, D., Ichu, T.-A., Jing, H., et al. Discovery and optimization of selective and in vivo active inhibitors of the lysophosphatidylserine lipase α/β -hydrolase domain-containing 12 (ABHD12).

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

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J. Med. Chem. 62(3), 1643-1656 (2019).|2. Ogasawara, D., Ichu, T.-A., Vartabedian, V.F., et al. Selective blockade of the lyso-PS lipase ABHD12 stimulates immune responses in vivo. Nat. Chem. Biol. 14(12), 1099-1108 (2018).

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