

Product Data Sheet

Product Name: ZDZ-553

Cat. No.: GC79468

Chemical Properties

Cas. No.

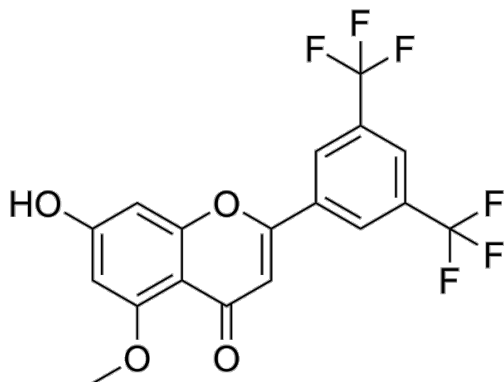
Formula $C_{18}H_{10}F_6O_4$ M.Wt 404.26

Solubility DMSO: 53 mg/mL (131.10 mM; Need ultrasonic) Storage Store at -20°C

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

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

Structure



Background

ZDZ-553 is an orally active STAT1 inhibitor with an IC_{50} value of 0.87 μ M. ZDZ-553 modulates STAT1 signaling to affect downstream lipid metabolism and inflammatory pathways. ZDZ-553 attenuates hepatic steatosis in NASH mouse models. ZDZ-553 reduces inflammatory responses in NASH mouse models. ZDZ-553 can be used for the research of nonalcoholic steatohepatitis [1].

In Vivo, ZDZ-553 (30-60 mg/kg; p.o.; daily; 4 weeks) administered orally at 30 and 60 mg/kg for 4 weeks dose-dependently ameliorates hepatic steatosis, liver damage, and inflammation in HF-CDA-

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induced NASH mice, with the 60 mg/kg dose showing greater efficacy than the 30 mg/kg dose and the positive control Dios^[1].

In Vitro, ZDZ-553 (24 h) potently inhibits STAT1 activity in stable 293T-STAT1/GAS-Luc cells with an IC₅₀ of 0.87 μ M and shows no cytotoxicity at concentrations up to 200 μ M ^[1]. ZDZ-553 (0.052 μ M; 0, 30, 60, 120 min) has excellent metabolic stability in human, mouse, and rat liver microsomes, with a T_{1/2} >120 min across all species^[1]. ZDZ-553 (0-200 μ M; 24 h) exhibits no cytotoxicity in HepG2 cells at concentrations up to 200 μ M^[1].

References:

[1]. Zhang Z, et al. Design, Synthesis, and Biological Evaluation of Chromone Derivatives as STAT1 Inhibitors for Treatment of Nonalcoholic Steatohepatitis. J Med Chem. 2026 Feb 12;69(3):2509-2538.

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