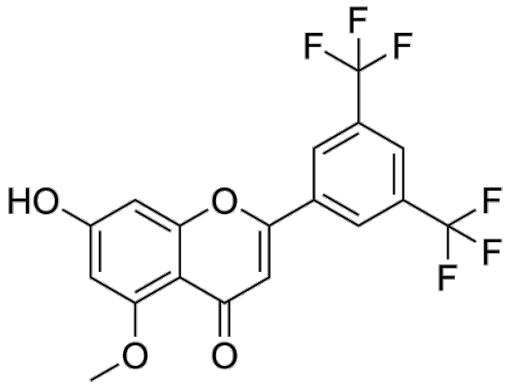
Product Data Sheet

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 μM. 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-CDAA-

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 IC_{50} of 0.87 μM and shows no cytotoxicity at concentrations up to 200 μM [1]. ZDZ-553 (0.052 μM; 0, 30, 60, 120 min) has excellent metabolic stability in human, mouse, and rat liver microsomes, with a T1/2 >120 min across all species[1]. ZDZ-553 (0-200 μM; 24 h) exhibits no cytotoxicity in HepG2 cells at concentrations up to 200 μM[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.