

Product Name : CAY10566

Synonyms : —

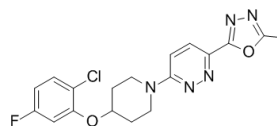
Cat No. : M22614

CAS Number : 944808-88-2

Molecular Formula : C₁₈H₁₇ClFNO₂

Formula Weight : 389.81

Chemical Name : —



Description

CAY10566 shows excellent cellular activity in blocking the conversion of saturated long-chain fatty acid-CoAs (LCFA-CoAs) to monounsaturated LCFA-CoAs in HepG2 cells (IC₅₀=7.9 nM or 6.8 nM). CAY10566 is a potent, orally bioavailable and selective stearyl-CoA desaturase1 (SCD1) inhibitor with IC₅₀s of 4.5 and 26 nM in mouse and human enzymatic assays, respectively. CAY10566 (0.0001-10 μM; 24 hours), concentration-dependently, decreases Swiss 3T3 cell proliferation. After establishment of palpable tumors, the mice are treated with vehicle or SCD1 inhibitor (2.5 mg/kg CAY10566 orally twice daily). The effect of SCD1 inhibition on the Akt-driven tumors is greater than on the Ras-driven tumors. With the mean tumor volume at day 13 or 14 post therapy, relative to untreated tumors, 0.5±0.04 and 0.67±0.05 respectively (P=0.01 for Ras-Akt comparison, by two-tailed t test).

Pathway : Metabolic Enzyme/Protease

Target : Dehydrogenase

Receptor : SCD1

Solubility : DMSO:24 mg/mL (61.57 mM; Need ultrasonic)

SMILES : Cc1nnc(o1)-c1ccc(nn1)N1CCC(CC1)Oc1cc(F)ccc1Cl

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Masuda M, et al. Activating transcription factor 4 regulates stearate-induced vascular calcification. J Lipid Res. 2012 Aug;53(8):1543-52.