

Product Data Sheet

Product Name: MHY553

Cat. No.: GC49521

Chemical Properties

Cas. No. 6265-56-1

SMILES OC1=CC(O)=C(C2=NC3=CC=CC=C3S2)C=C1

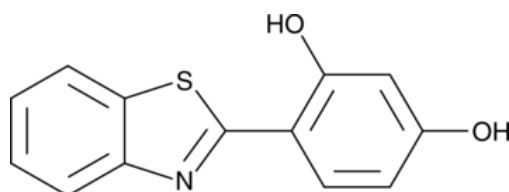
Formula C₁₃H₉NO₂S M.Wt 243.3

Solubility DMSO: 24.5 mg/ml Storage -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

MHY553 is an agonist of peroxisome proliferator-activated receptor α (PPAR α).¹ It activates PPAR α in HepG2 cells in a reporter assay when used at a concentration of 1 μ M but does not activate PPAR β or PPAR γ at 10 μ M. MHY553 (3 μ M) prevents triglyceride accumulation induced by the liver X receptor (LXR) agonist T0901317 in HepG2 cells, as well as scavenges reactive oxygen species (ROS) and peroxynitrite in cell-free assays (IC₅₀s = 39.7 and 2.39 μ M, respectively).^{1,2} It also inhibits β -glucuronidase and tyrosinase (IC₅₀s = 8.9 and 0.01 μ M for the bovine liver and mushroom enzymes, respectively).^{3,4} MHY553 (5 mg/kg) reduces age-induced increases in liver weight and triglyceride levels in a rat model of hepatic steatosis.¹

1. Kim, S.M., Lee, B., An, H.J., et al. Novel PPAR α agonist MHY553 alleviates hepatic steatosis by increasing fatty acid oxidation and decreasing inflammation during aging. *Oncotarget* 8(28):46273-46285 (2017)
2. Jung, H.J., Kim, S.M., Kim, D.H., et al. 2,4-Dihydroxyphenyl-benzo[d]thiazole

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

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(MHY553), a synthetic PPAR α agonist, decreases age-associated inflammatory responses through PPAR α activation and RS scavenging in the skinExp. Gerontol.143111153(2021) 3.Khan, K.M., Rahim, F., Halim, S.A., et al.Synthesis of novel inhibitors of β -glucuronidase based on benzothiazole skeleton and study of their binding affinity by molecular dockingBioorg. Med. Chem.19(14)4286-4294(2011) 4.Ha, Y.M., Park, J.Y., Park, Y.J., et al.Synthesis and biological activity of hydroxy substituted phenyl-benzo[d]thiazole analogues for antityrosinase activity in B16 cellsBioorg. Med. Chem. Lett.21(8)2445-2449(2011)

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