

Product Data Sheet

Product Name: IMR-1A
Cat. No.: GC36304

Chemical Properties

Cas. No. 331862-41-0

SMILES O=C(O)COC1=CC=C(/C=C(SC(N2)=S)\C2=O)C=C1OC

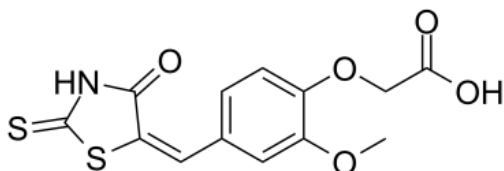
Formula $C_{13}H_{11}NO_5S_2$ M.Wt 325.36

Solubility DMSO: 2 mg/mL (6.15 mM); Water: < 0.1 mg/mL (insoluble) 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

IMR-1A, an acid metabolite of IMR-1, is a Notch inhibitor with an IC₅₀ of 0.5 μM. IMR-1A shows a 50-fold increase in potency compared to IMR-1. IMR-1 can be metabolized in vivo to IMR-1A[1]. IC₅₀: 0.5 μM (Notch)[1]

IMR-1A (2 mg/kg (i.v.) and 100 mg/kg (i.p.)) exhibits low systemic plasma clearance (CL = 7 mL/min/kg) with a terminal elimination half-life (T_{1/2}) of 2.22 h following a single i.v. administration. The

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normal liver blood flow in mice is 90 mL/min/kg and the Vss (volume of distribution) is ~4-fold.

Plasma concentrations is quantifiable up to 24 h with Tmax of 0.50 h after i.p. administration[1].

Animal Model: Male C57 BL/6 mice[1]

[1]. Astudillo L et al. The Small Molecule IMR-1 Inhibits the Notch Transcriptional Activation Complex to Suppress Tumorigenesis. Cancer Res. 2016 Jun 15;76(12):3593-603.

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