

Product Data Sheet

Product Name: Raptinal
Cat. No.: GC63914

Chemical Properties

Cas. No. 1176-09-6

Formula C₂₈H₁₈O₂

M.Wt 386.44

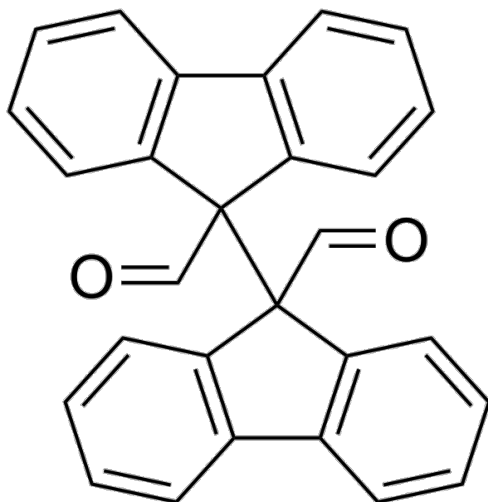
Solubility DMSO : 33.33 mg/mL (86.25 mM;
Need ultrasonic)

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

Raptinal, a agent that directly activates caspase-3, initiates intrinsic pathway caspase-dependent apoptosis. Raptinal is able to rapidly induce cancer cell death by directly activating the effector caspase-3, bypassing the activation of initiator caspase-8 and caspase-9[1][2].

H. pylori infection-induced apoptosis resistance in gastric epithelial cells triggered by Raptinal[1]. Treatment with 10 µM of Raptinal for 2 h induces the cleavage of pro-caspase-3 into it's active form in human gastric cancer cell lines AGS, MKN28, MKN45[1]. Raptinal initiates intrinsic pathway

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

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caspase-dependent apoptosis within minutes in multiple cell lines. Raptinal induces death against various cancer and non-cancerous cell lines with 24 hour IC50 values between 0.7-3.4 μ M, indicating activity across a wide variety of cell lines[2].

Raptinal is an unusually rapid inducer of caspase-dependent apoptosis in multiple cell lines and in vivo systems[1]. Raptinal (20 mg/kg; administered intraperitoneally; once daily for 3 consecutive days for B16-F10 and 4 consecutive days for 4T1 models) exerts anticancer activity in vivo[2]. C57BL/6 mice are administered intravenous Raptinal across a range of dosages as a one-time injection. When administered intravenously at a dosage of 37.5 mg/kg, the peak plasma concentration and elimination half-life of Raptinal are 54.4 ± 0.9 μ g/mL and 92.1 ± 5.8 minutes, respectively. Single-dose intravenous Raptinal is well tolerated across a wide dose range (15-60 mg/kg) and does not cause hematologic toxicity as assessed 7 days post-administration[2].

[1]. Yanheng Chen, et al. H. pylori infection confers resistance to apoptosis via Brd4-dependent BIRC3 eRNA synthesis. Cell Death Dis. 2020 Aug 21;11(8):667.

[2]. Rahul Palchaudhuri, et al. A Small Molecule that Induces Intrinsic Pathway Apoptosis with Unparalleled Speed. Cell Rep. 2015 Dec 1;13(9):2027-36.

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