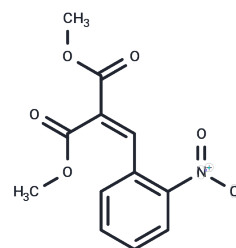


NCI 126224

Chemical Properties

CAS No. : 65974-52-9
 Formula: C₁₂H₁₁NO₆
 Molecular Weight: 265.2
 Storage: Keep away from moisture
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

| | |
|----------------------------|--|
| Description | NCI 126224 is a Toll-like receptor 4 (TLR4) antagonist that selectively inhibits nitric oxide production induced by the TLR4 agonist LPS in RAW 264.7 macrophages (IC ₅₀ = 0.31 μM), while exhibiting weaker effects against the TLR7/8 agonist R-848, TLR1/2 agonist Pam3CSK4, and TLR3 agonist poly(I:C). NCI 126224 also inhibits FSL-1-induced NO production at 0.6 μM and suppresses LPS-induced NF-κB activity in BV-2 glial cells, while reducing IL-1β and TNF-α levels in RAW 264.7 cells (IC ₅₀ s of 5.92 and 1.54 μM, respectively). 0.42, and 1.54 μM, respectively), demonstrating its significant value in studies of inflammatory and innate immune signaling pathways. |
| Targets(IC ₅₀) | TLR |
| In vivo | Structurally related arylidene malonate derivatives developed from the NCI 126224 scaffold exhibit anti-inflammatory activity in vivo. In a mouse model of xylene-induced ear edema, optimized analogues such as Compound 3e reduced swelling and inflammation in a dose-dependent manner [1]. |

Solubility Information

| | |
|------------|--|
| Solubility | Ethanol: Soluble Methanol: Soluble Chloroform: Soluble DMSO: 100 mg/mL (377.07 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 3.7707 mL | 18.8537 mL | 37.7074 mL |
| 5 mM | 0.7541 mL | 3.7707 mL | 7.5415 mL |
| 10 mM | 0.3771 mL | 1.8854 mL | 3.7707 mL |
| 50 mM | 0.0754 mL | 0.3771 mL | 0.7541 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang S, et, al. Selection, synthesis, and anti-inflammatory evaluation of the arylidene malonate derivatives as TLR4 signaling inhibitors. *Bioorg Med Chem.* 2012 Oct 15;20(20):6073-9.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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