SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

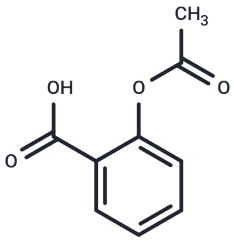
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T0005)

TargetMol

Aspirin

Chemical Properties



CAS No. : 50-78-2

Formula: C9H8O4

Molecular Weight: 180.16

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Aspirin (Acetylsalicylic Acid) is a COX inhibitor that inhibits COX1 and COX2 (IC50=5/210 μg/mL) with selective, irreversible, and oral activity. Aspirin is also a histone deacetylase inhibitor that up-regulates the cell cycle blocking protein, p21. Aspirin has a variety of activities. Aspirin has anti-inflammatory, antipyretic and analgesic, and antiplatelet aggregation activities.
Targets(IC50)	Mitophagy,Virus Protease,COX,Autophagy
In vitro	**METHODS**: Colorectal cancer cells SW620, LoVo, RKO and DLD-1 were treated with Aspirin (2 mM) and Cisplatin (5-80 μM) for 48 h. Cell viability was detected by MTT assay. **RESULTS**: The combination more effectively reduced the viability of colon cancer cells. The combination treatment resulted in a significant decrease in the IC50 value of Cisplatin. [1] **METHODS**: Osteoblasts MG-63 were treated with Aspirin (1-1000 μM) for 24 h. Cell cycle was detected by Flow cytometry. **RESULTS**: Aspirin at doses of 1, 10, and 20 μM had no significant effect on the MG-63 cell cycle after 24 h of treatment. However, the percentage of cells in G0/G1 phase was significantly increased at doses of 100 and 1000 μM. [2]
In vivo	**METHODS**: To assay in vivo antitumor activity, Aspirin (100 mg/kg administered by gavage once daily) and Cisplatin (3 mg/kg administered intraperitoneally every three days) were administered to nude mice bearing LoVo xenografts for 18 days. **RESULTS**: Aspirin and Cisplatin synergistically inhibited the growth of colon cancer grafts in nude mice, and these effects were exerted, at least in part, through modulation of the PI3K-Akt, RAF-MEK-ERK, and NF-κB/COX-2 signaling pathways. [1]
Cell Research	Chondrocytes are isolated from articular cartilage of donors with no articular disease. Unstimulated and interleukin 1 (IL-1) stimulated chondrocytes are used as models to study the effects of drugs on COX-1 and COX-2. Cells are incubated with vehicle or drugs (Asprin); supernatants are removed and the level of prostaglandin E2 (PGE2) in each sample is determined by enzyme immunoassay. IC50s are calculated from the reduction in PGE2 content by different concentrations of the test substance by linear regression analysis[5].

Solubility Information

Solubility	H2O: 1.80 mg/mL (10 mM),Sonication and heating are recommended. DMSO: 50 mg/mL (277.53 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.5506 mL	27.7531 mL	55.5062 mL
5 mM	1.1101 mL	5.5506 mL	11.1012 mL
10 mM	0.5551 mL	2.7753 mL	5.5506 mL
50 mM	0.111 mL	0.5551 mL	1.1101 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.

Reference

Jiang W, et al. Aspirin enhances the sensitivity of colon cancer cells to cisplatin by abrogating the binding of NF-κB to the COX-2 promoter. Aging (Albany NY). 2020 Jan 6;12(1):611-627.