Data Sheet (Cat.No.T0005)



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 potent and selective inhibitor of COX with various pharmacological activities, such as anti-inflammation and pain relief. Aspirin is a histone deacetylase inhibitors to up-regulate cell cycle arrest protein p21, which can suppresses ovarian Y cells harboring COX-1. Aspirin also inhibits the expression of COX-2 in HUVEC and neonatal rat ventricular cardiomyocytes, and then reduce PG production and the down-regulation of ERK and NF-KB, respectively.
Targets(IC50)	Mitophagy,Virus Protease,COX,Autophagy
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	DMSO: 50 mg/mL (277.53 mM),	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	Y

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.

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Reference

Kopp E, et al. Science, 1994, 265(5174), 956-959.

Bi X, Yan X, Jiang B, et al. Indoprofen exerts a potent therapeutic effect against sepsis by alleviating high mobility

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