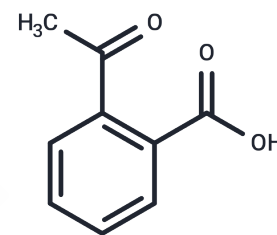


2-Acetylbenzoic acid

Chemical Properties

CAS No. :	577-56-0
Formula:	C ₉ H ₈ O ₃
Molecular Weight:	164.16
Storage:	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	2-Acetylbenzoic acid is more potent than 2-propionyloxybenzoic acid in inhibiting platelet function and platelet prostaglandin (PG) synthesis although the potencies of these agents were comparable in inhibiting prostacyclin (PGI ₂) synthesis.
Targets(IC ₅₀)	PAFR,Prostaglandin Receptor
In vitro	A series of benzoic acid derivatives was tested for specificity of action on human platelet function and platelet prostaglandin (PG) synthesis versus prostacyclin (PGI ₂) production by rat and rabbit aorta rings. None of the agents tested was more specific for one system than the other. ASA was more potent than 2-propionyloxybenzoic acid (2-PBA) in inhibiting platelet function and platelet PG synthesis although the potencies of these agents were comparable in inhibiting PGI ₂ synthesis. 3-Propionyloxybenzoic acid (3-PBA) caused increased activity in both systems while 2-Acetylbenzoic acid had only minor effects. A cyclical derivative, 3-methylphthalide (3-MP), inhibited both platelet function and PGI ₂ synthesis although it did not inhibit cyclo-oxygenase activity, suggesting a novel mechanism of action[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (335.04 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0916 mL	30.4581 mL	60.9162 mL
5 mM	1.2183 mL	6.0916 mL	12.1832 mL
10 mM	0.6092 mL	3.0458 mL	6.0916 mL
50 mM	0.1218 mL	0.6092 mL	1.2183 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

Killackey JJ, Killackey BA, Philp RB. Structure-activity studies of aspirin and related compounds on platelet aggregation, arachidonic acid metabolism in platelets and artery, and arterial prostacyclin activity. Prostaglandins Leukot Med. 1982 Jul;9(1):9-

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