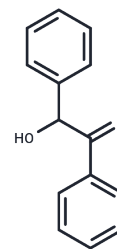


Benzoin

Chemical Properties

CAS No. :	119-53-9
Formula:	C14H12O2
Molecular Weight:	212.24
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	The main uses of Benzoin (Benzoylphenylcarbinol) are as a precursor to benzil, which is a photoinitiator.
Targets(IC50)	Others,PI3K
Kinase Assay	ERK2 Rapidfire Mass Spectrometry Inhibition of Catalysis Assay: MEK U911-activated ERK2 protein is expressed and purified in-house. Enzyme and substrate solutions are made up in assay buffer consisting of 50 mM Tris (pH 7.5), 10 mM MgCl ₂ , 0.1 mM EGTA, 10 mM DTT and 0.01% (v/v) CHAPS. 1.2 nM ERK2 protein is prepared in assay buffer and 10 µL is dispensed into each well of a polypropylene, 384-well plate containing test and reference control compounds. The compound plates had previously been dosed with a 12 point range from 100 µM down to 0.1 nM in order to calculate compound IC ₅₀ s, with a total DMSO concentration in the assay of 1%. Following a 20 minute pre-incubation of enzyme and compound at room temperature, 10 µL of substrate solution is added consisting of 16 µM Erktide (IPTTPITTYFFFK) and 120 µM ATP (measured K _m) in assay buffer. The reaction is allowed to progress for 20 minutes at room temperature before being quenched by the addition of 80 µl 1% (v/v) formic acid. The assay plates are then run on the RapidFire Mass Spectrometry platform to measure substrate (unphosphorylated Erktide) and product (phosphorylated Erktide) levels.

Solubility Information

Solubility	Ethanol: 3.4 mg/mL (16.02 mM),Sonication and heating are recommended. DMSO: 55 mg/mL (259.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (9.42 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.7116 mL	23.5582 mL	47.1165 mL
5 mM	0.9423 mL	4.7116 mL	9.4233 mL
10 mM	0.4712 mL	2.3558 mL	4.7116 mL
50 mM	0.0942 mL	0.4712 mL	0.9423 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

Cumming, L. (1952). (V) The Determination of the Acid Value of Benzoin. *Journal Of Pharmacy And Pharmacology*, 4(1), 325-326. doi: 10.1111/j.2042-7158.1952.tb13154.x

Hernández, K., Parella, T., Petrillo, G., Usón, I., Wandtke, C., & Joglar, J. et al. (2017). Intramolecular Benzoin Reaction Catalyzed by Benzaldehyde Lyase from *Pseudomonas Fluorescens* Biovar I. *Angewandte Chemie International Edition*, 56(19), 5304-5307. doi: 10.1002/anie.201702278

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