

## 3-Hydroxyacetophenone

## Chemical Properties

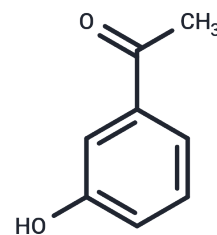
CAS No. : 121-71-1

Formula: C<sub>8</sub>H<sub>8</sub>O<sub>2</sub>

Molecular Weight: 136.15

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	3-Hydroxyacetophenone is a naturally occurring phenolic ketone exhibiting antifungal activity against <i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> .
Targets(IC50)	Antifungal
In vitro	Under continuous treatment at concentrations of 10–50 mM for 60 days, 3-Hydroxyacetophenone was able to inhibit the mycelial growth of <i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> . [4]

## Solubility Information

Solubility	DMSO: 80 mg/mL (587.59 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: 3.3 mg/mL (24.24 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

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	1mg	5mg	10mg
1 mM	7.3448 mL	36.7242 mL	73.4484 mL
5 mM	1.469 mL	7.3448 mL	14.6897 mL
10 mM	0.7345 mL	3.6724 mL	7.3448 mL
50 mM	0.1469 mL	0.7345 mL	1.469 mL

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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

Tibbetts KM, et al. Controlling dissociation of alkyl phenyl ketone radical cations in the strong-field regime through hydroxyl substitution position. *J Phys Chem A*. 2014 Sep 18;118(37):8170-6.

Zhang R, et al. Isolation and characterization of a novel *Rhodococcus* strain with switchable carbonyl reductase and para-acetylphenol hydroxylase activities. *J Ind Microbiol Biotechnol*. 2013 Jan;40(1):11-20.

Han K, et al. Chemoenzymatic synthesis of rivastigmine via dynamic kinetic resolution as a key step. *J Org Chem*. 2010 May 7;75(9):3105-8.

Curir P, et al. 3-Hydroxyacetophenone in carnations is a phytoanticipin active against *Fusarium oxysporum* f. sp. dianthi. *Phytochemistry*, 1996, 41(2): 447-450.

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