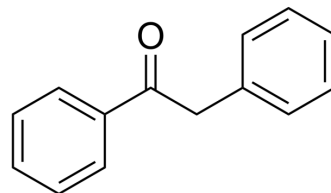


## 2-Phenylacetophenone

Cat. No.:	HY-Y1777		
CAS No.:	451-40-1		
Molecular Formula:	C <sub>14</sub> H <sub>12</sub> O		
Molecular Weight:	196.24		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (509.58 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	5.0958 mL	25.4790 mL	50.9580 mL
		5 mM	1.0192 mL	5.0958 mL	10.1916 mL
10 mM		0.5096 mL	2.5479 mL	5.0958 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

Description	2-Phenylacetophenone has broad-spectrum efflux pump inhibition activity. 2-Phenylacetophenone is a benzoin derivative used as a photoinitiator in vinyl polymerization <sup>[1]</sup> .
In Vitro	<p>2-Phenylacetophenone displays antibacterial activity against <i>B. subtilis</i>, <i>M. smegmatis</i>, and <i>M. aurum</i> with MICs of 500 µg/mL<sup>[1]</sup>.</p> <p>2-Phenylacetophenone (1000 µg/mL) inhibits biofilm formation for <i>M. smegmatis</i><sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

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## REFERENCES

[1]. Hellewell L, et al. Chalcones, stilbenes and ketones have anti-infective properties via inhibition of bacterial drug-efflux and consequential synergism with antimicrobial agents. Access Microbiol. 2020 Feb 18;2(4):acmi000105.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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