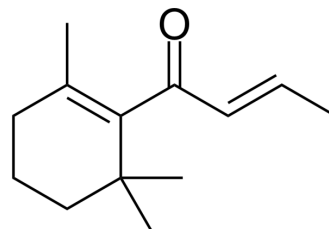


## β-Damascone

<b>Cat. No.:</b>	HY-N10013		
<b>CAS No.:</b>	23726-91-2		
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>20</sub> O		
<b>Molecular Weight:</b>	192.3		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (520.02 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	5.2002 mL	26.0010 mL	52.0021 mL
		5 mM	1.0400 mL	5.2002 mL	10.4004 mL
10 mM		0.5200 mL	2.6001 mL	5.2002 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<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 (13.00 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 (13.00 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (13.00 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	β-Damascone is an aroma active rice volatile and is widely used in perfume compositions. β-Damascone has also received certain attention as a potential cancer chemopreventive and a mosquito and muscoid insecticide <sup>[1][2]</sup> .
<b>In Vitro</b>	CYP101C1 is capable of binding and hydroxylating ionone derivatives including α- and β-ionone and β-damascone <sup>[3]</sup> . Several of the key flavor compounds in rose essential oil are C <sub>13</sub> -norisoprenoids, such as β-damascenone, β-Damascone, and β-ionone which are derived from carotenoid degradation <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. Mahattanatawee K, et al. Comparison of aroma active and sulfur volatiles in three fragrant rice cultivars using GC-olfactometry and GC-PFPD. Food Chem. 2014;154:1-6.
- [2]. Gabryś B, et al. Systemic deterrence of aphid probing and feeding by novel  $\beta$ -damascone analogues. J Pest Sci (2004). 2015;88(3):507-516.
- [3]. Ma M, et al. Structural Analysis of CYP101C1 from *Novosphingobium aromaticivorans* DSM12444. Chembiochem. 2011;12(1):88-99.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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