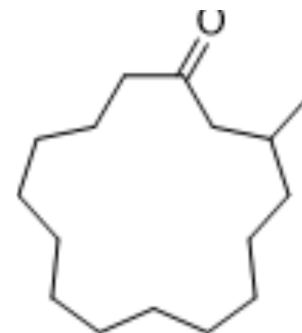


## Muscone

<b>Cat. No.:</b>	HY-N0633												
<b>CAS No.:</b>	541-91-3												
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>30</sub> O												
<b>Molecular Weight:</b>	238.41												
<b>Target:</b>	Interleukin Related; TNF Receptor; NF-κB; NOD-like Receptor (NLR)												
<b>Pathway:</b>	Immunology/Inflammation; Apoptosis; NF-κB												
<b>Storage:</b>	<table border="0"> <tr> <td>Pure form</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Pure form	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
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	-20°C	1 month											



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (419.45 mM; Need ultrasonic)			
	H <sub>2</sub> O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
<b>Preparing Stock Solutions</b>	1 mM	4.1945 mL	20.9723 mL	41.9445 mL
	5 mM	0.8389 mL	4.1945 mL	8.3889 mL
	10 mM	0.4194 mL	2.0972 mL	4.1945 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 (10.49 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 (10.49 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution</li> </ol>			

### BIOLOGICAL ACTIVITY

<b>Description</b>	Muscone is the main active monomer of traditional Chinese medicine musk. Muscone inhibits NF-κB and NLRP3 inflammasome activation. Muscone remarkably decreases the levels of inflammatory cytokines (IL-1β, TNF-α and IL-6), and ultimately improves cardiac function and survival rate <sup>[1]</sup> .			
<b>IC<sub>50</sub> &amp; Target</b>	NF-κB	NLRP3	IL-1β	IL-6

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### In Vitro

Muscone significantly downregulates the levels of LPS-induced inflammatory cytokines and inhibits NF- $\kappa$ B and NLRP3 inflammasome activation in Bone marrow-derived macrophages (BMDMs). Muscone serves as a promising and effective drug for post-myocardial infarction (MI) treatment<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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### REFERENCES

[1]. Du Y, et al. Muscone improves cardiac function in mice after myocardial infarction by alleviating cardiac macrophage-mediated chronic inflammation through inhibition of NF- $\kappa$ B and NLRP3 inflammasome. *Am J Transl Res.* 2018 Dec 15;10(12):4235-4246.

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

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