

## Muscone Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Muscone

**Catalog No.:** CFN99518

**Cas No.:** 541-91-3

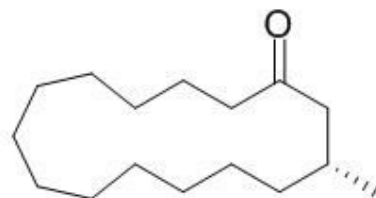
**Purity:** > 98%

**M.F:** C<sub>16</sub>H<sub>30</sub>O

**M.W:** 238.42

**Physical Description:** Oil

**Synonyms:** 3-Methyl-1-cyclopentadecanone.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Perfumes;
6. Others.

### [ Source ]

Not data available.

### [ Biological Activity or Inhibitors ]

Muscone has a protective effect against ischemia-reperfusion (I/R) injury in cardiac myocytes, indicating that muscone may potentially provide therapeutic benefit in I/R injury by inhibiting cellular oxidative stress and apoptosis.<sup>[1]</sup>

Muscone and borneol can increase geniposide transport in the blood–brain barrier models may attribute to disassembly effect on tight junction integrity.<sup>[2]</sup>

Muscone and moschus can promote the living of retinal neurons indirectly by enhancing the biological efficacy of nerve growth factor(NGF).<sup>[3]</sup>

Muscone is a promising agent for treating intervertebral disc degeneration through its antiinflammatory effects.<sup>[4]</sup>

Muscone has neuroprotective effect, it can protect PC12 cells against glutamate -induced apoptosis by attenuating ROS generation and Ca<sup>2+</sup> influx, via NR1 and CaMKII-dependend ASK-1/JNK/p38 signaling pathways.<sup>[5]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, Methanol, Ethyl ether, etc.

## **[ HPLC Method ]<sup>[6]</sup>**

Mobile phase: Acetonitrile -H<sub>2</sub>O=90:10 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 365 nm.

## **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

[1] Wu Q, Li H, Wu Y, *et al. J. Ethnopharmacol.*, 2011, 138(1):34-9.

[2] Chen Z Z, Lu Y, Du S Y, *et al. Int. J. Pharm.*, 2013, 456(1):73-9.

[3] Zhang S, Song Y Q, Ju C X, *et al. Nat. Prod. Res. Develop.*, 2007, 9(5):981-8.

[4] Liang Q Q, Zhang M, Zhou Q, *et al. Clin .Orthop. Relat. R.*, 2010, 468(6):1600-10.

[5] Yu L, Ning W, Zhang Y, *et al. Neurochem. Int.*, 2014, 70(1):10-21.

[6] Lei Y. *Chinese Journal of Pharmaceutical Analysis*, 2007(1):60-2.

## **[ Contact ]**

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