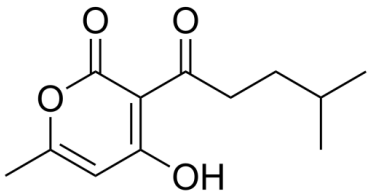
Data Sheet

Product Name:	Pogostone
Cat. No.:	CS-0016840
CAS No.:	23800-56-8
Molecular Formula:	$C_{12}H_{16}O_4$
Molecular Weight:	224.25
Target:	Apoptosis; Autophagy; Bacterial
Pathway:	Anti-infection; Apoptosis; Autophagy
Solubility:	DMSO : 100 mg/mL (ultrasonic)



BIOLOGICAL ACTIVITY:

Pogostone is isolated from patchouli oil with anti-bacterial and anti-cancer activities. Pogostone inhibits both gram negative and gram positive bacteria, also show inhibitory effect on ***corynebacterium xerosis*** with a **MIC** value of 0.098 μg/ml [2]. Pogostone induces cell **apoptosis** and **autophagy**[2]. IC50 & Target:IC50: apoptosis; autophagy; bacteria[1][2] ***In Vitro:*** Pogostone shows inhibitory effects on HCT116 cell with an IC_{50} value of 18.7±1.93 μg/ml, and show strikingly lower cytotoxicity on normal human embryonic kidney cell 293A (IC_{50}: 95.13±19.44 μg/ml) and endothelial cell HUVEC (IC_{50}: 112±20.77 μg/ml)[1].
In Vivo: Pogostone (intraperitoneal injection; 25, 50 and 100 mg/kg) shows antibacterial activity in vivo against Escherichia coli (E. coli) and MRSA. Ninety percent of the mice infected with E. coil could be protected at the concentrations of 50 and 100 mg/kg, and 60% of the mice at 25 mg/kg, while the rate of protection for the mice infected with MRSA was 60% and 50% at doses of 100 and 50 mg/kg, respectively[2].

References:

[1]. Peng F, et al. In vitro and in vivo antibacterial activity of Pogostone.Chin Med J (Engl). 2014;127(23):4001-5.

[2]. Cao ZX, et al. Pogostone induces autophagy and apoptosis involving PI3K/Akt/mTOR axis in human colorectal carcinoma HCT116 cells.J Ethnopharmacol. 2017 Apr 18;202:20-27.

CAIndexNames:

2H-Pyran-2-one, 4-hydroxy-6-methyl-3-(4-methyl-1-oxopentyl)-

SMILES:

O=C1C(C(CCC(C)C)=O)=C(O)C=C(C)O1

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