For Research Use Only

Carveol

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Catalog Number: CM04794

产品信息

Catalog Number:
CM04794

CAS号:
99-48-9

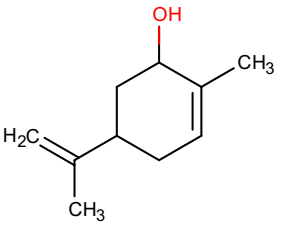
分子式:
$C_{10}H_{16}O$

主要靶点:
Endogenous Metabolite

主要通路:
代谢

分子量:
152.23

溶解度:
DMSO:50 mg/ml (328.45 mM)



体外活性

(-)-Carveol exhibited a significant vasorelaxant effect on KCl and 5-HT-induced contractions, obtaining EC50 values of 344.25 ± 8.4 and 175.82 ± 4.05 μM, respectively. The participation of calcium channels in the relaxation produced by (-)-carveol was analyzed using vessels pre-incubated with (-)-carveol (2000 μM) in a calcium-free medium, where the induction of contractions was abolished. The vasorelaxant effect of (-)-carveol on HUAs was reduced by tetraethylammonium (TEA), which increased the (-)-carveol EC50 to 484.87 ± 6.55 μM. The present study revealed that (-)-carveol possesses a vasorelaxant activity in HUAs, which was dependent on the opening of calcium and potassium channels[1].

体内活性

(-)-Carveol has low toxicity, with a lethal dose 50% (LD50) equal to or greater than 2,500 mg/kg according to OECD guide no 423. In all gastric ulcer induction methods evaluated, (-)-Carveol (25, 50, 100 and 200 mg/kg, p.o.) significantly reduced the ulcerative lesion in comparison with the respective control groups. In the experimental protocol of pylorus ligation-induced gastric ulcer, (-)-Carveol (100 mg/kg) reduced ($p < 0.001$) the volume of gastric secretion in both routes (oral and intraduodenal). The previous administration of blockers NEM (sulfhydryl groups blocker), L-NAME (nitric oxide synthesis inhibitor), glibenclamide (KATP channel blocker) and indomethacin (cyclo-oxygenase inhibitor), significantly reduced the gastroprotection exercised by (-)-Carveol, suggesting the participation of these pathways in its gastroprotective activity. In addition, treatment with (-)-Carveol (100 mg/kg) increased ($p < 0.001$) mucus adhered to the gastric wall. Treatment also increased ($p < 0.001$) levels of reduced glutathione (GSH), superoxide dismutase (SOD) and interleukin-10 (IL-10). It also reduced ($p < 0.001$) malondialdehyde (MDA), myeloperoxidase (MPO), interleukin-1 beta (IL-1β) and tumor necrosis factor-alpha (TNF-α) levels[2].

描述

(-)-Carveol, mixture of isomers is a monocyclic monoterpenic alcohol, present in essential oils of plant species such as Cymbopogon giganteus, Illicium pachyphyllum and in spices such as Carum carvi (cumin).

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years

For technical support and original validation data for this product please contact
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