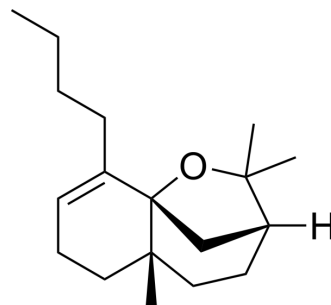


## 4-Butyl-alpha-agarofuran

<b>Cat. No.:</b>	HY-19496
<b>CAS No.:</b>	272126-07-5
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>30</sub> O
<b>Molecular Weight:</b>	262.43
<b>Target:</b>	5-HT Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	4-Butyl-alpha-agarofuran (AF 5) is an anxiolytic and antidepressant agent. 4-Butyl-alpha-agarofuran a $\alpha$ -agarofuran derivative that can be isolated from Gharu-wood. 4-Butyl-alpha-agarofuran can be used for the research of neurological disease research <sup>[1]</sup> .
<b>In Vitro</b>	4-Butyl-alpha-agarofuran (2 mg) is completely metabolized in 100 min to the hydroxy derivative I and carbonyl derivative II in human liver microsome incubation system <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	4-Butyl-alpha-agarofuran (0.5-10 mg/kg; i.p., once) shows antianxiety effects in a social interaction test and the serotonin (5-HT) levels of striatum, cortex, and midbrain are significantly decreased <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>Animal Model:</b>	Male Wistar rats <sup>[1]</sup>
<b>Dosage:</b>	0.5, 1.0, 2.0, 4.0, 5.0 and 10.0 mg/kg
<b>Administration:</b>	Intraperitoneal injection; 0.5, 1.0, 2.0, 4.0, 5.0 and 10.0 mg/kg; once
<b>Result:</b>	Dose-dependently prolonged the total time spent in social interaction test at a dose range of 0.5-2.0 mg/kg. Decreased the 5-HT levels in brain tissues, decreased dopamine levels of in rat striatum and midbrain and also reduced the cortical level of epinephrine at a dose of 5 mg/kg after acute administration. Decreased the extracellular dopamine level in the striatum at a dose of 10 mg/kg.

### REFERENCES

- [1]. Zhang Y, et al. Effects of novel anxiolytic 4-butyl-alpha-agarofuran on levels of monoamine neurotransmitters in rats. *Eur J Pharmacol.* 2004 Nov 3;504(1-2):39-44.
- [2]. Li N, et al. [In vitro metabolic studies of the novel anti-anxietic drug AF-5 and its metabolites in human liver microsome incubation system]. *Yao Xue Xue Bao.* 2001 Jul;36(7):528-31. Chinese.

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

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