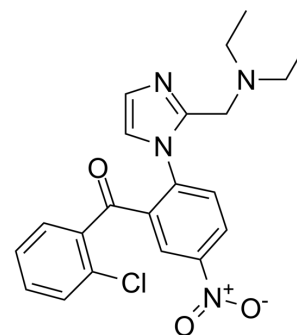


## Nizofenone

<b>Cat. No.:</b>	HY-119513
<b>CAS No.:</b>	54533-85-6
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>21</sub> ClN <sub>4</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	412.87
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Nizofenone is a neuroprotective agent which protects neurons from death following cerebral ischemia or anoxia. Nizofenone can be used in the research of acute neurological conditions, such as stroke <sup>[1][2][3]</sup> .								
<b>In Vitro</b>	Nizofenone (1 and 10 μM) prolongs the action potential duration of guinea-pig papillary muscle and dog Purkinje fibers <sup>[3]</sup> . Nizofenone (30 μM) suppresses the spontaneous activity of dog Purkinje fibers and guinea-pigs S-A node <sup>[3]</sup> . Nizofenone (100 μM) decreases the contractile force of guinea-pig papillary muscle <sup>[3]</sup> . Nizofenone (10 μM) inhibits the peroxidative disintegration of mitochondria (in rat brain mitochondrial suspension) <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
<b>In Vivo</b>	Nizofenone (3 and 9 mg/kg, i.p., daily) attenuates the chronic restraint stress (CRS)-induced cognitive impairments <sup>[1]</sup> . Nizofenone (10 mg/kg i.p.) inhibits ischemia-induced glutamate increase and lactate increase in the hippocampus of rats <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>Mice with chronic restraint stress<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>3, 9 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection (i.p.), daily</td> </tr> <tr> <td>Result:</td> <td>Increased crossing frequencies of the open field test. Increased in the activities of enzymatic SOD and CAT.</td> </tr> </table>	Animal Model:	Mice with chronic restraint stress <sup>[1]</sup>	Dosage:	3, 9 mg/kg	Administration:	Intraperitoneal injection (i.p.), daily	Result:	Increased crossing frequencies of the open field test. Increased in the activities of enzymatic SOD and CAT.
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### REFERENCES

- [1]. Yi Liu, et al. Protective effects of nizofenone administration on the cognitive impairments induced by chronic restraint stress in mice. *Pharmacol Biochem Behav.* 2013 Jan;103(3):474-80.
- [2]. Y Matsumoto, et al. Nizofenone, a neuroprotective drug, suppresses glutamate release and lactate accumulation. *Eur J Pharmacol.* 1994 Sep 1;262(1-2):157-61.
- [3]. Y Miura, et al. [Effects of nizofenone on the action potential of guinea-pig papillary muscle and S-A node and dog Purkinje fibers].
- [4]. H Yasuda, et al. Cerebral protective effect and radical scavenging action. *J Neurochem.* 1981 Oct;37(4):934-8.

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

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