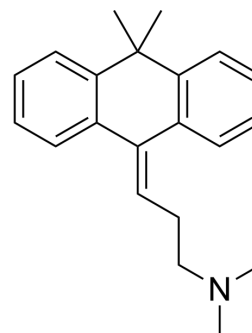


## Melitracen

Cat. No.:	HY-121778
CAS No.:	5118-29-6
Molecular Formula:	C <sub>21</sub> H <sub>25</sub> N
Molecular Weight:	291.43
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Melitracen (Melitracene) is an orally active tricyclic antidepressant and it is also a bipolar thymoleptic with activating properties. Melitracen inhibits <sup>3</sup> H-5-HT and <sup>14</sup> H-5-HT with IC <sub>50</sub> s of 670 nM and 5500 nM, respectively. Melitracen can be used for the research of depression and anxiety <sup>[1][2]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 670 nM (3H-5-HT), 5500 nM (14H-5-HT) <sup>[2]</sup>								
<b>In Vitro</b>	<p>Melitracen (0-10 μM; 10 min) inhibits <sup>3</sup>H-5-HT in synaptosomes and <sup>14</sup>H-5-HT in blood platelets<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[2]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Synaptosomes and blood platelets from male albino rats</td> </tr> <tr> <td>Concentration:</td> <td>0-10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>10 min</td> </tr> <tr> <td>Result:</td> <td>Inhibited <sup>3</sup>H-5-HT in synaptosomes and <sup>14</sup>H-5-HT in blood platelets with IC<sub>50</sub>s of 670 nM and 5500 nM, respectively.</td> </tr> </table>	Cell Line:	Synaptosomes and blood platelets from male albino rats	Concentration:	0-10 μM	Incubation Time:	10 min	Result:	Inhibited <sup>3</sup> H-5-HT in synaptosomes and <sup>14</sup> H-5-HT in blood platelets with IC <sub>50</sub> s of 670 nM and 5500 nM, respectively.
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<b>In Vivo</b>	<p>Melitracen (10-90 mg/kg; p.o. once daily for 3 months) affects behavior, weight and growth of rats<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male and female Wistar rats<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10, 30 and 90 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral gavage; 10-90 mg/kg daily; for 3 months</td> </tr> <tr> <td>Result:</td> <td>Showed aggressive behaviour, excitability, body and livers weight gain, and livers slight atrophic with increasing dose to rats.</td> </tr> </table>	Animal Model:	Male and female Wistar rats <sup>[1]</sup>	Dosage:	10, 30 and 90 mg/kg	Administration:	Oral gavage; 10-90 mg/kg daily; for 3 months	Result:	Showed aggressive behaviour, excitability, body and livers weight gain, and livers slight atrophic with increasing dose to rats.
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### REFERENCES

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[1]. Shimamoto K, et al. Relationship between the restriction of food intake and Melitracen, an antidepressant, in the rat. *Acta Sch Med Univ Kioto*. 1967 Jul;40(1):25-37.

[2]. Hyttel J. Effect of a specific 5-HT uptake inhibitor, citalopram (Lu 10-171), on 3H-5-HT uptake in rat brain synaptosomes in vitro. *Psychopharmacology (Berl)*. 1978 Dec 15;60(1):13-8. doi: 10.1007/BF00429172. PMID: 104340.

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

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