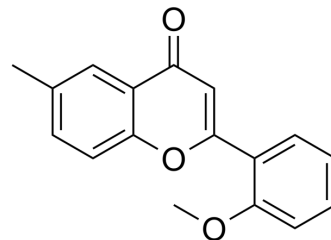


## 2'MeO6MF

Cat. No.:	HY-131997
CAS No.:	89112-85-6
Molecular Formula:	C <sub>17</sub> H <sub>14</sub> O <sub>3</sub>
Molecular Weight:	266.29
Target:	GABA Receptor
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	2'MeO6MF is a brain-penetrant positive allosteric modulator at $\alpha 2\beta 1\gamma 2L$ and all $\alpha 1$ -containing GABA <sub>A</sub> receptors. 2'MeO6MF also can directly activate $\alpha 2\beta 2/3$ and $\alpha 2\beta 2/3\gamma 2L$ GABA <sub>A</sub> receptors. 2'MeO6MF has anxiolytic and psychomotor stabilizing properties. 2'MeO6MF offers neuroprotection and improved functional recovery and dampens the stroke-induced inflammatory response <sup>[1][2]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	GABA <sub>A</sub> receptor <sup>[1]</sup>								
<b>In Vitro</b>	<p>2'MeO6MF (100-300 <math>\mu</math>M; 60 min) weakly displaces [<sup>3</sup>H]-flunitrazepam binding to rat brain synaptosomal membranes by 5-10%. 2'MeO6MF enhances [<sup>3</sup>H]-muscimol binding to rat brain synaptic membranes in a concentration-dependent manner yielding a mean E<sub>max</sub> of 219.8% and apparent EC<sub>50</sub>=20.8 nM<sup>[1]</sup>.</p> <p>2'MeO6MF (1-300 <math>\mu</math>M) enhances the response elicited by a low concentration of GABA in a concentration-dependent manner at recombinant <math>\alpha 1\beta 2\gamma 2L</math> GABA<sub>A</sub> receptors expressed in Xenopus oocytes. 2'MeO6MF enhances the response elicited by GABA at recombinant <math>\alpha 1\beta 1,3\gamma 2L</math> and <math>\alpha 1\beta 2</math> GABA<sub>A</sub> receptors without any direct activation<sup>[1]</sup>.</p> <p>2'MeO6MF (1-10 <math>\mu</math>M; 60 min) increases tonic inhibitory currents in a concentration-dependent manner in granule cells<sup>[2]</sup>.</p> <p>2'MeO6MF (100-1000 <math>\mu</math>M; 6.5 h) inhibits the LPS-induced increase of NF<math>\kappa</math>B activity in RAWblue<sup>TM</sup> macrophage cells<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
<b>In Vivo</b>	<p>2'MeO6MF (1-100 mg/kg; i.p.) displays anxiolytic-like effects in the elevated plus maze and light/dark tests. 2'MeO6MF induces sedative effects at higher doses in the holeboard, actimeter and barbiturate-induced sleep time tests<sup>[1]</sup>.</p> <p>2'MeO6MF (30 mg/kg; i.p.) increases tonic currents in layer 2/3 pyramidal neurons of mice after stroke<sup>[2]</sup>.</p> <p>2'MeO6MF (0.1-30 mg/kg; i.p.) is neuroprotective and enhances functional recovery after focal cerebral ischaemia in mice<sup>[2]</sup>.</p> <p>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 Balb-c mice (8-10 weeks, 25-35 g)<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>1, 10, 30, 100 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p.</td> </tr> <tr> <td>Result:</td> <td>No overt acute toxicity was observed. Exerted anxiolytic effects at low doses and sedative effects at high doses without myorelaxant effects.</td> </tr> </table>	Animal Model:	Male Balb-c mice (8-10 weeks, 25-35 g) <sup>[1]</sup>	Dosage:	1, 10, 30, 100 mg/kg	Administration:	i.p.	Result:	No overt acute toxicity was observed. Exerted anxiolytic effects at low doses and sedative effects at high doses without myorelaxant effects.
Animal Model:	Male Balb-c mice (8-10 weeks, 25-35 g) <sup>[1]</sup>								
Dosage:	1, 10, 30, 100 mg/kg								
Administration:	i.p.								
Result:	No overt acute toxicity was observed. Exerted anxiolytic effects at low doses and sedative effects at high doses without myorelaxant effects.								

---

## REFERENCES

---

- [1]. Karim N, et, al. 2'-Methoxy-6-methylflavone: a novel anxiolytic and sedative with subtype selective activating and modulating actions at GABA(A) receptors. Br J Pharmacol. 2012 Feb;165(4):880-96.
- [2]. Clarkson AN, et, al. The flavonoid, 2'-methoxy-6-methylflavone, affords neuroprotection following focal cerebral ischaemia. J Cereb Blood Flow Metab. 2019 Jul;39(7):1266-1282.
- 

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA