

Product Datasheet

2'MeO6MF

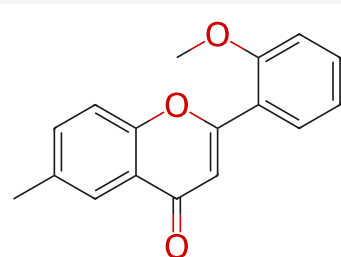
 Catalog No. **BP-02442** · CAS **89112-85-6** · Form **free base** · Physical state **solid** · Version **1.0** · Revision **2026-09-14**
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Target GABA Receptor	Research area Neurological Disease; Inflammation/Immunology
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 Molecular formula **C₁₇H₁₄O₃**

 Molecular weight **266.2913**

STRUCTURE



DESCRIPTION

2'MeO6MF is a brain-penetrant positive allosteric modulator at $\alpha 2\beta 1\gamma 2L$ and all $\alpha 1$ -containing GABAA receptors. 2'MeO6MF also can directly activate $\alpha 2\beta 2/3$ and $\alpha 2\beta 2/3\gamma 2L$ GABAA receptors. 2'MeO6MF has anxiolytic and psychomotor stabilizing properties. 2'MeO6MF offers neuroprotection and improved functional recovery and dampens the stroke-induced inflammatory response .

BIOLOGICAL ACTIVITY

In Vitro

2'MeO6MF (100-300 μM ; 60 min) weakly displaces [3H]-flunitrazepam binding to rat brain synaptosomal membranes by 5-10%. 2'MeO6MF enhances [3H]-muscimol binding to rat brain synaptic membranes in a concentration-dependent manner yielding a mean Emax of 219.8% and apparent EC50=20.8 nM.

2'MeO6MF (1-300 μM) enhances the response elicited by a low concentration of GABA in a concentration-dependent manner at recombinant $\alpha 1\beta 2\gamma 2L$ GABAA receptors expressed in *Xenopus* oocytes. 2'MeO6MF enhances the response elicited by GABA at recombinant $\alpha 1\beta 1,3\gamma 2L$ and $\alpha 1\beta 2$ GABAA receptors without any direct activation.

2'MeO6MF (1-10 μM ; 60 min) increases tonic inhibitory currents in a concentration-dependent manner in granule cells.

2'MeO6MF (100-1000 μM ; 6.5 h) inhibits the LPS-induced increase of NFkB activity in RAWblueTM macrophage cells.

In Vivo

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.

2'MeO6MF (30 mg/kg; i.p.) increases tonic currents in layer 2/3 pyramidal neurons of mice after stroke.

2'MeO6MF (0.1-30 mg/kg; i.p.) is neuroprotective and enhances functional recovery after focal cerebral ischaemia in mice.

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.

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