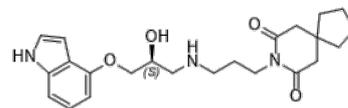


Product Name : TMU4142
Cat. No. : PC-25733
CAS No. :
Molecular Formula : C₂₃H₃₁N₃O₄
Molecular Weight : 413.52
Target : 5-HT Receptor
Solubility : 10 mM in DMSO



Biological Activity

TMU4142 is a potent, GoA pathway-selective **5-HT1A receptor** (5-HT1AR) agonist with pEC₅₀ of 8.80 (EC₅₀=1.59 nM), E_{max}=92.78%.

TMU4142 displays nearly full agonist activity at the 5-HT1AR GoA pathway, whereas its Gi3 activity is significantly lower than that of 5-HT.

TMU4142 strongly activates the GoA protein over other tested Gi/o family proteins.

TMU4142 shows no discernible activity at 5-HT1AR β-arrestin-2 pathway, and weak or no activity at other serotonin and dopamine receptors.

TMU4142 (1.5 mg/kg) elicits rapid antidepressant-like activity without triggering significant DRN autoreceptor activation in mouse model of depression.

References

Wang C, et al. *Cell*. 2025 Nov 12:S0092-8674(25)01194-8.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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