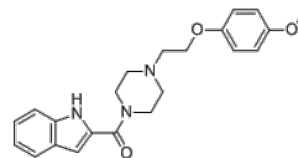


Product Name : ML417
Cat. No. : PC-72158
CAS No. : 1386162-69-1
Molecular Formula : C₂₂H₂₅N₃O₃
Molecular Weight : 379.46
Target : Dopamine Receptor
Solubility : 10 mM in DMSO



Biological Activity

ML417 (ML 417) is a novel potent and uniquely selective **D3 dopamine receptor** (D3R) full agonist with EC₅₀ of 38 nM in β -arrestin recruitment assays. ML417 displays global selectivity at all other receptor subtypes, very limited activity (IC₅₀ > 50 μ M) at all subtypes except for the D2R, exhibits submicromolar affinity for only 3 targets, the β 1-adrenergic, 5-HT2B, and σ -1 receptor in large arrays of GPCRs and several transporters or ion channels.

ML417 potently promotes D3R-mediated β -arrestin translocation, G protein activation, and ERK1/2 phosphorylation (pERK) while lacking activity at other dopamine receptors.

ML417 protect D3R-expressing dopaminergic neurons from 6-OHDA-induced cell death.

References

Moritz AE, et al. *J Med Chem*. 2020 May 28;63(10):5526-5567.

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

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