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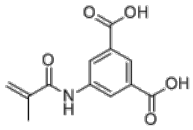
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	MS0015203
Cat. No.	:	PC-47110
CAS No.	:	73912-52-4
Molecular Formula	:	$C_{12}H_{11}NO_5$
Molecular Weight	:	249.222
Target	:	Other Targets
Solubility	:	10 mM in DMSO



Biological Activity

MS0015203 is a potent, selective small-molecule agonist of neuropeptide receptor GPR171 with binding IC50 of 81 nM (WT GPR171).
MS0015203 displays high selectivity against a panel of 80 other membrane proteins, including family A GPCRs.
MS0015203 potently binds to the mutants receptors (Y99A, Y239A, and R243A) except C184A.
MS0015203 dose-dependently increased [35S]GTPγS binding and inhibited adenylyl cyclase activity in rat hypothalamic membranes (EC50=5.0 nM).
Systemic or central administration of MS0015203 increased feeding through a mechanism involving GPR171.
MS0015203 (3 mg/kg, intraperitoneally) caused a significant increase in the total number of c-Fos–positive cells, increase in neuronal activity within cells containing GPR171 in the paraventricular nucleus (PVN) in mice.
Administration of MS0015203 (2.5 mg/kg, 40 days) significantly increased the abundance of the mRNAs encoding proSAAS, NPY, AgRP, or orexin in the ventral hypothalamus, also significantly increased the abundance of the mRNAs encoding the NPY receptor Y1R and the orexin receptor HCRT2 and significantly decreased that encoding the orexin receptor HCRT1 in the ventral hypothalamus.

References

Sci Signal. 2016 May 31;9(430):ra55.

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