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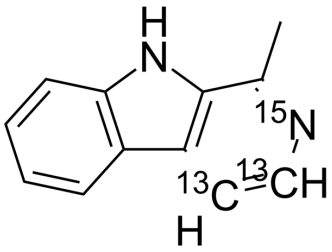
Harman-$^{13}C_2$,^{15}N

Cat. No.:	HY-W777360
CAS No.:	1189461-56-0
Molecular Formula:	$C_{10}{}^{13}C_2H_{10}N^{15}N$
Molecular Weight:	185.2
Target:	Isotope-Labeled Compounds; Adrenergic Receptor; Monoamine Oxidase; nAChR; Opioid Receptor; Imidazoline Receptor; GABA Receptor
Pathway:	Others; GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Harman-$^{13}C_2$,^{15}N is ^{13}C and ^{15}N labeled Harmane. Harmane is a benzodiazepine receptor inhibitor (IC_{50}=7 μM), with IC_{50} values for mACh, Opioid Receptor, MAO-A/B, and α2-adrenergic receptor of 24 μM, 2.8 μM, 0.5 μM, 5 μM, and 18 μM, respectively. Harmane also inhibits haloperidol and serotonin, with IC_{50} values of 163 μM and 101 μM, respectively. Harmane inhibits the I1 imidazoline receptor (IC_{50}=30 nM) to reduce blood pressure and has antidepressant, anti-anxiety, anticonvulsant, and analgesic effects. Harmane inhibits dopamine biosynthesis by decreasing tyrosine hydroxylase (TH) activity and enhancing L-DOPA-induced cytotoxicity in PC12 cells. Additionally, Harmane can increase the mutagenic effect induced by 2-acetylaminofluorene (AAF)[1][2][3][4][5][6].

REFERENCES

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[7]. Yoo Jung Yang, et al. Effects of harman and norharman on dopamine biosynthesis and L-DOPA-induced cytotoxicity in PC12 cells. Eur J Pharmacol. 2008 Jun 10;587(1-3):57-64.

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