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Harmine

产品编号: D50903
CAS: 442-51-3
分子式: C13H12N2O
纯度: ≥98%
InChi: InChI=1S/C13H12N2O/c1-8-13-11(5-6-14-8)10-4-3-9(16-2)7-12(10)15-13/h3-7,15H,1-2H3
InChi Key: BXNJHAXVSOCGBA-UHFFFAOYSA-N
Smiles: CC1=NC=CC2=C1NC1=CC(=CC=C21)OC
外观: 固体粉末
作用通路: 5-HT Receptor
溶解性: DMSO up to 100 mM
保存条件: Store in dry, dark place for one year.
产品介绍: Harmine is a potent, selective and orally bioavailable DYRK1A inhibitor with IC50 of 80 nM. It inhibits phosphorylation of tau directly by DYRK1A (IC50 ~700 nM). It has >10-fold selectivity over DYRK3 and DYRK2 (IC50 ~800 nM and 900 nM respectively. Harmine is also a unique regulator of PPARγ expression that acts by inhibiting the Wnt signalling pathway in a cell-specific manner. It attenuates inflammatory gene expression (TNFα, IL-1β, iNOS) and macrophage accumulation in adipose tissue. Administration of harmine (30 mg/kg) to obese db/db mice resulted in reduced blood glucose, free fatty acids, and triglyceride levels, delayed hyperglycemia, and improved insulin sensitivity. Being function as a new class of human beta cell mitogenic compound, by using three different mouse and human islet in vivo-based models, harmine is able to induce beta cell proliferation, increase islet mass and improve glycemic control. The nuclear factors of activated T cells (NFAT) family of transcription factors are defined as likely mediators of human beta cell proliferation and differentiation.