Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Harmine

Catalog No: tcsc5325

Available Sizes

Size: 500mg

Specifications

CAS No:
442-51-3

Formula:
$C_{13}H_{12}N_2O$

Pathway:
Protein Tyrosine Kinase/RTK;Neuronal Signaling;GPCR/G Protein;Cell Cycle/DNA Damage

Target:
DYRK;5-HT Receptor;5-HT Receptor;RAD51

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (141.34 mM); H2O :

Alternative Names:
Telepathine

Observed Molecular Weight:
212.25

Product Description

Harmine is a natural dual-specificity tyrosine phosphorylation-regulated kinase (**(DYRK)**) inhibitor with anticancer and anti-inflammatory activities.

IC50 & Target: Ki: 397 nM (5-HT_{2A})[1], DYRK1A[2], Rad51[3].

In Vitro:

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Harmine is an inhibitor of 5-HT_{2A}, with an K_i of 397 nM[1]. Harmine inhibits tau phosphorylation by DYRK1A by selected DANDYs, with an IC_{50} of 190 nM[2].Harmine negatively regulates HR by interfering Rad51 recruitment, resulting in severe cytotoxicity in hepatoma cells. Furthermore, NHEJ inhibitor Nu7441 markedly sensitizes Hep3B cells to the anti-proliferative effects of Harmine[3].

In Vivo: It is shown that brain water content is significantly increased in the TBI group. Treatment with Harmine significantly reduces the tissue water content at 1, 3 and 5 days, compared with the TBI group. Harmine treatment significantly reduces the escape latency at 3 and 5 days, compared with the TBI group. Post-TBI administration of Harmine significantly improves the motor function recovery of the rats at 1, 3 and 5 days following TBI, compared with the TBI group without Harmine treatment. The neuronal survival rate in the Harmine-treated group is significantly increased, compared with the TBI group. Administration of Harmine results in marked elevation in the expression of GLT-1, compared with the TBI group. The administration of Harmine significantly reduces the expression of caspase 3, compared with the TBI group[4].