Geissoschizoline

Cat. No.: HY-N10429

CAS No.: 18397-07-4

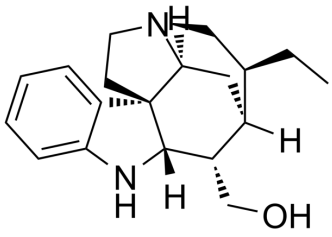
Molecular Formula: $C_{19}H_{26}N_2O$

Molecular Weight: 298.42

Target: Cholinesterase (ChE)

Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Geissoschizoline ((+)-Geissoschizoline) is a potent inhibitor of human AChE/BChE, with IC_{50}s of 20.40 μM and 10.21 μM, respectively. Geissoschizoline emerges as a possible multi-target prototype that can be very useful in studies of preventing neurodegeneration and restoring neurotransmission. Geissoschizoline aiso is a potent anti-inflammatory agent[1].
IC_{50} & Target	IC50: 20.40 μM (AChE), 10.21 μM (BChE)[1]
In Vitro	Geissoschizoline(1 μM; 48 hours) significantly reduces production of TNF-α and NO in LPS-stimulated microglial cells [1]. Geissoschizoline(1, 10 and 30 μM; 24 hours) shows no cytotoxicity to LPS-stimulated microglial cells[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	LPS-stimulated microglial cells (pre-incubated with various concentrations (0.1- 10 μM) of geissoschizoline for 1 hour)
Concentration:	1 μM
Incubation Time:	48 hours
Result:	Reduced neuroinflammation and increased neuroprotection, also restored synaptic transmission.

Cell Cytotoxicity Assay[1]

Cell Line:	LPS-stimulated microglial cells
Concentration:	1, 10 and 30 μM
Incubation Time:	24 hours
Result:	Did not affect cell viability.

REFERENCES

[1]. Josélia A Lima, et al. Geissoschizoline, a promising alkaloid for Alzheimer's disease: Inhibition of human cholinesterases, anti-inflammatory effects and molecular docking. Bioorg Chem. 2020 Nov;104:104215.

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