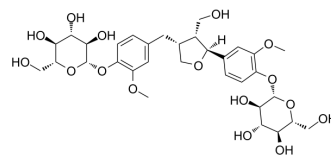


Clemastanin B

Cat. No.:	HY-N6025
CAS No.:	112747-98-5
Molecular Formula:	C ₃₂ H ₄₄ O ₁₆
Molecular Weight:	684.68
Target:	Influenza Virus
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Clemastanin B, a lignin, has potent anti-influenza activities by inhibiting the virus multiplication, prophylaxis and blocking the virus attachment. Clemastanin B targets viral endocytosis, uncoating or ribonucleoprotein (RNP) export from the nucleus. Clemastanin B has antioxidant and anti-inflammatory activities ^{[1][2][3]} .
In Vitro	<p>Clemastanin B inhibits different subtypes of human (H1N1, including swine-origin H1N1; H3N2 and influenza B) and avian influenza viruses (H6N2, H7N3, H9N2) at different magnitudes of activity (IC₅₀ 0.087-0.72 mg/ml) while this compound was inactive against respiratory syncytial virus (RSV), adenovirus 3 (ADV3), parainfluenza virus 3 (PIV3), enterovirus 71 (EV71) and human rhinovirus (HRV)^[1].</p> <p>Clemastanin B (0.05, 0.1, 0.2, 0.4 mg/ml; for 8 hours) treatment results in nucleoprotein (NP) distribution in the nuclei in MDCK cells^[1].</p> <p>Clemastanin B (48-72 h) after virus incubation (MOI, 0.01; for 2 h) causes a pronounced titer reduction of progeny virus in MDCK cells^[1].</p> <p>Clemastanin B (pre-incubated for 2 h) has no protective effect on MDCK cell lines with influenza virus^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Zifeng Yang, et al. Antiviral activity of Isatis indigotica root-derived clemastanin B against human and avian influenza A and B viruses in vitro. *Int J Mol Med*. 2013 Apr;31(4):867-73.
- [2]. Ping Xiao, et al. Antiviral activities against influenza virus (FM1) of bioactive fractions and representative compounds extracted from Banlangen (Radix Isatidis). *J Tradit Chin Med*. 2016 Jun;36(3):369-76.
- [3]. Ping Xiao, et al. In vitro antioxidant and anti-inflammatory activities of Radix Isatidis extract and bioaccessibility of six bioactive compounds after simulated gastrointestinal digestion. *J Ethnopharmacol*. 2014 Nov 18;157:55-61.

Caution: Product has not been fully validated for medical applications. For research use only.

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