Product Data Sheet

Product Name: Niranthin
Cat. No.: GC17997

Chemical Properties

Cas. No.	50656-77-4		
Chemical Name	*rel*-6-[(2R,3R)-4-(3,4-dimethoxyphenyl)-2,3-bis(methoxymethyl)butyl]-4-methoxy-1,3-benzodioxole		
SMILES	COC1=CC(C[C@@H](COC)[C@H](COC)CC2=CC(OC)=C(OC)C=C2)=CC3=C1OCO3		
Formula	$C_{24}H_{32}O_7$	M.Wt	432.5
Solubility	DMF: 15 mg/ml,DMSO: 10 mg/ml,Ethanol: 5 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Niranthin		

Background

IC50: 15.6 μM and 25.1 μM for inhibiting the secretion of HBsAg and HBeAg, respectively.

Niranthin is a natural lignin isolated from the genus Phyllanthus, with antiviral activities both in vitro and in vivo. Niranthin also exerts anti-inflammatory and anti-allodynic activities.

In Vitro: In human hepatoma cell line MS-G2 which synthesizes hepatitis B viral particles, Niranthin was screened among 25 pure compounds which were isolated from several phyllanthus species with the most potent anti-HBV activity (EC50= 33.6 μM) by effectively suppressing the expression of HBsAg and HBeAg, with the highest inhibition of 74.3% [1]. Besides, in human HBV-transfected liver cell line HepG2.2.15, Niranthin could significantly inhibit the secretion of HBsAg and HBeAg after treatment for 144 h, with the IC50 values of 15.6 μM and 25.1 μM, respectively [2].

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In Vivo: In duck hepatitis B virus (DHBV) infected ducks, intragastric administration of Niranthin could significantly decrease the plasma DHBV DNA levels, with the mean inhibition percentage of 70.72%, 75.23%, and 90.87% at the dose of 25, 50, and 100 mg/kg/day, respectively. Niranthin could also significantly inhibit the serum HBsAg, HBeAg, ALT, and AST levels [2].

Clinical trial: no data available.

References:

[1] Huang R, Huang Y, Ou J, et al. Screening of 25 compounds isolated from Phyllanthus species for anti-human hepatitis B virus in vitro[J]. Phytotherapy Research, 2003, 17(5): 449-453.

[2] Liu S, Wei W, Li Y, et al. In vitro and in vivo anti-hepatitis B virus activities of the lignan nirtetralin B isolated from Phyllanthus niruri L.[J]. Journal of Ethnopharmacology, 2014, 157(2): 1061-1067.

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