Product Data Sheet

Product Name: Specneuzhenide
Cat. No.: GC37673

Chemical Properties

Cas. No.	449733-84-0		
SMILES	C/C=C1[C@@H](C(C(OC)=O)=CO[C@H]/1O[C@]2([H])O[C@@H]([C@@H](O)[C@H](O)[C@H]2O)CO)CC(OC[C@H]3O[C@H]([C@H](O)[C@@H](O)[C@@H]3O)OCCC4=CC=C(O)C=C4)=O		
Formula	$C_{31}H_{42}O_{17}$	M.Wt	686.65
Solubility	DMSO: ≥ 100 mg/mL (145.63 mM)	Storage	4°C, protect from light
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	Specneuzhenide		

Background

Specneuzhenide is an iridoid glycoside originally isolated from *L. lucidum* with diverse biological activities.[1,2,3,4] It reduces neurotoxicity induced by 6-OHDA in SH-SY5Y cells by 49.2% when used at a concentration of 10 μM.[1] Specneuzhenide (25, 50, and 100 μM) reduces high glucose-induced levels of cleaved caspase-3 protein and apoptosis in mouse glomerular mesangial cells.[2] It increases cell viability and alkaline phosphatase activity in osteoblastic UMR-106 cells.[3] Specneuzhenide inhibits hypoxia-induced VEGFA secretion, VEGFA and prolyl hydroxylase 2 (PHD-2) mRNA expression, and protein levels of VEGFA, HIF-1α, and PHD-2 in human acute retinal pigment epithelial-19 (ARPE-19) cells.[4] *In vivo*, specneuzhenide (5 and 10 mg/kg) prevents retinal neovascularization in a rat model of oxygen-induced retinopathy.

1.Sung, S.H., Kim, E.S., Lee, K.Y., et al.A new neuroprotective compound of Ligustrum japonicum leavesPlanta Med.72(1)62-64(2006) 2.Zhang, A.-n., Li, P., Hong, X.-h., et al.Preventive effect of specnuezhenide on high glucose-induced apoptosis in glomerular

Caution: Product has not been fully validated for medical applications. For research use only.
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mesangial cellsZhongguo Shiyan Fangjixue Zazhi21(8)116-119(2015) 3.Huang, Y., Wu, Y., Wu, J., et al.Chemical constituents from Ligustrum lucidum differentially promote bone formation and prevent oxidative damage in osteoblastic UMR-106 cellsLat. Am. J. Pharm.33(2)258-265(2014) 4.Wu, J., Ke, X., Fu, W., et al.Inhibition of hypoxia-induced retinal angiogenesis by specnuezhenide, an effective constituent of Ligustrum lucidum Ait., through suppression of the HIF-1α/VEGF signaling pathwayMolecules21(12)E1756(2016)

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