Product Data Sheet

Product Name: Swertisin
Cat. No.: GC37708

Chemical Properties

Cas. No.	6991-10-2		
SMILES	O=C1C=C(C2=CC=C(O)C=C2)OC3=CC(OC)=C([C@H]4[C@@H]([C@H]([C@@H]([C@@H](CO)O4)O)O)O)C(O)=C13		
Formula	$C_{22}H_{22}O_{10}$	M.Wt	446.4
Solubility	Soluble in DMSO	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	Swertisin		

Background

Swertisin is a flavonoid C-glycoside that has been found in *Swertia japonica* and has diverse biological activities.[1,2,3] It inhibits sodium-glucose cotransporter 2 (SGLT2) in HEK293 cells when used at a concentration of 7.5 ?g/ml and is an adenosine A_1 receptor antagonist (IC_{50} = 137 ?M).[1,2] Swertisin (0.2-5 ?M) inhibits hepatitis B virus (HBV) replication in HepG2 2.2.15 cells.[3] It decreases blood glucose levels in a mouse model of diabetes induced by streptozotocin , as well as prevents scopolamine-induced increases in escape latency in the Morris water maze in mice.[1,2]

1.Bhardwaj, G., Vakani, M., Srivastava, A., et al.Swertisin, a novel SGLT2 inhibitor, with improved glucose homeostasis for effective diabetes therapyArch. Biochem. Biophys.710108995(2021) 2.Lee, H.E., Jeon, S.J., Ryu, B., et al.Swertisin, a C-glucosylflavone, ameliorates scopolamine-induced memory impairment in mice with its adenosine A1 receptor antagonistic propertyBehav. Brain Res.306137-145(2016) 3.Xu, H.-Y., Ren, J.-H., Su, Y., et al.Anti-hepatitis B virus activity of swertisin isolated from Iris

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