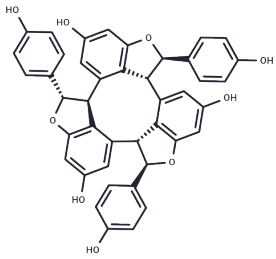
Data Sheet (Cat.No.TN1378)

TargetMol

α-Viniferin

Chemical Properties



CAS No. : 62218-13-7

Formula: C42H30O9

Molecular Weight: 678.68

Storage: Store at low temperature,Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	α-Viniferin known as 2-arylbenzofuran flavonoids, that are inhibitors of prostaglandin H2 synthetase. α-Viniferin has anti-Alzheimer's disease, anti-tuberculosis, anti-tumor, anti-inflammation, anti-diabetes and other pharmacological activitie
Targets(IC50)	Endogenous Metabolite,NO Synthase,Cytochromes P450,Prostaglandin Receptor
In vitro	α-Viniferin at 3 - 10 muM dose-dependently inhibited IFN-gamma-induced production of NO, IFN-gamma-inducible protein-10 (IP-10), or the monokine induced by IFN-gamma (MIG) in RAW 264.7 cells and also that of NO in primary macrophages-derived from C57BL/6 mice. Furthermore, α-Viniferin diminished IFN-gamma-induced protein levels of inducible NO synthase (iNOS), attenuated mRNA levels of iNOS, IP-10, or MIG as well as inhibited promoter activity of the iNOS gene[1].α-viniferin is a bioactive phytochemical compound obtained from Carex humilis, which has the antitubercular activity. α-Viniferin was active against both drug-susceptible and -resistant strains of Mycobacterium tuberculosis at MIC50s of 4.6 μM in culture broth medium and MIC50s of 2.3-4.6 μM inside macrophages and pneumocytes[2]. α-Viniferin strongly inhibited 7 of the 9 P450 (CYP) isoforms (except CYP2A6 and CYP2E1) in human. α-viniferin strongly inhibited CYP2C19-mediated omeprazole 5-hydroxylation and CYP3A4-catalyzed midazolam 1-hydroxylation with IC50 values of 0.93 and 1.2 μM, respectively[3].
In vivo	Oral bioavailability of α-viniferin in mice was 4.2 %.[4]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4734 mL	7.3672 mL	14.7345 mL
5 mM	0.2947 mL	1.4734 mL	2.9469 mL
10 mM	0.1473 mL	0.7367 mL	1.4734 mL
50 mM	0.0295 mL	0.1473 mL	0.2947 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lee JY, et al. alpha-Viniferin suppresses the signal transducer and activation of transcription-1 (STAT-1)-inducible inflammatory genes in interferon-gamma-stimulated macrophages.J Pharmacol Sci. 2010;112(4):405-14.
Seo H, et al. In vitro activity of alpha-viniferin isolated from the roots of Carex humilis against Mycobacterium tuberculosis. Pulm Pharmacol Ther. 2017 Oct;46:41-47.
Fan Y, et al. Pharmacokinetic and bioavailability studies of α-viniferin after intravenous and oral administration to rats. J Pharm Biomed Anal. 2020 Sep 5;188:113376.
Sim J, et al. Potent inhibitory effect of alpha-viniferin on human cytochrome P450. Food Chem Toxicol. 2014 Jul;69:276-80.