Product Data Sheet

Product Name: Fusapyrone
Cat. No.: GC17144

Chemical Properties

Cas. No.	156856-31-4		
Chemical Name	3-(4-deoxy-β-xylo-hexopyranosyl)-2-hydroxy-6-[(3E,5E,8Z)-2-hydroxy-7-(hydroxymethyl)-1,1,5,9,11-pentamethyl-3,5,8-heptadecatrien-1-yl]-2H-pyran-2-one		
SMILES	O[C@H]1C[C@@H](CO)O[C@@H](C2=C(O)OC(C(C)(C)C(O)/C=C/C(C)=C/C(CO)/C=C(C)\CC(C)CCCCCC)=CC2=O)[C@@H]1O		
Formula	$C_{34}H_{54}O_9$	M.Wt	606.8
Solubility	DMF: soluble,DMSO: soluble,Ethanol: soluble,Methanol: soluble	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	Fusapyrone		

Background

Fusapyrone, a broad-spectrum antifungal metabolite, is isolated from several Fusarium species.

Structurally, fusapyrone consists of a 4-deoxy-β-xylo-hexopyranosyl C-glycosyl moiety bound to the C-6 of the 2-pyrone ring and a highly functionalized aliphatic chain. Fusapyrone exhibited low zoo-toxicity, as evidenced by a lack of toxicity against Artemia salina. Fusapyrone exerted considerable antifungal activity against several plant mycotoxigenic, pathogenic, and human pathogenic filamentous fungi, including Aspergillus flavus, Aspergillus niger, Aspergillus parasiticus, and Aspergillus fumigatus [1]. Additionally, it had been investigated as a useful candidate for the control of postharvest crop diseases, including blocking the growth of ochratoxin-producing strains

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of Aspergillus section Nigri in wine grapes. However, fusapyrone was found to be ineffective toward yeasts isolated from fruits and plants and not toxic to Artemia salina (brine shrimp). The mechanism of action of fusapyrone is unknown and the structure of fusapyrone was revised in 2006.

In vitro: Up to now, in vitro study of fusapyrone is still in the development stage.

In vivo: Up to now, in vivo study of fusapyrone is still in the development stage.

Reference:
[1]. Favilla, M., Pascale, M., Ricelli, A., Evidente, A., Amalfitano, C., & Altomare, C. Inhibition of Species of the Aspergillus Section Nigri and Ochratoxin a Production in Grapes by Fusapyrone. Applied and Environmental Microbiology.2008; 74(7): 2248-2253.