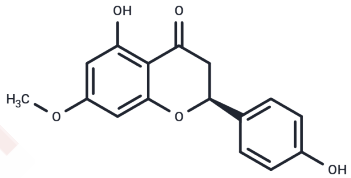
Data Sheet (Cat.No.TN1126)

TargetMol

Sakuranetin

Chemical Properties



CAS No. : 2957-21-3

Formula: C16H14O5

Molecular Weight: 286.28

Storage: Keep away from moisture,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	Sakuranetin, a flavanone phytoalexin from ultraviolet-irradiated rice leaves, it has antifungal, antimutagenic, anti-inflammatory and antioxidant effects
Targets(IC50)	NF-κB,Antifungal,PPAR,VEGFR
In vitro	Young rice leaves in a resistant line exhibited hypersensitive reaction (HR) within 3 days post inoculation (dpi) of a spore suspension, and an increase in Sakuranetin was detected at 3 dpi, increasing to 4-fold at 4 dpi. In the susceptible line, increased Sakuranetin was detected at 4 dpi, but not at 3 dpi, by which a large fungus mass has accumulated without HR. Induced expression of a PA biosynthesis gene OsNOMT for naringenin 7-O-methyltransferase was found before accumulation of Sakuranetin in both cultivars. The antifungal activity of Sakuranetin was considerably higher than that of the major rice diterpenoid PA momilactone A in vitro and in vivo under similar experimental conditions. The decrease and detoxification of Sakuranetin were detected in both solid and liquid mycelium cultures, and they took place slower than those of momilactone A. Estimated local concentration of Sakuranetin at HR lesions was thought to be effective for fungus restriction, while that at enlarged lesions in susceptible rice was insufficient[1]

Solubility Information

Solubility	DMSO: 125 mg/mL (436.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (13.97 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4931 mL	17.4654 mL	34.9308 mL
5 mM	0.6986 mL	3.4931 mL	6.9862 mL
10 mM	0.3493 mL	1.7465 mL	3.4931 mL
50 mM	0.0699 mL	0.3493 mL	0.6986 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

Analysis on blast fungus-responsive characters of a flavonoid phytoalexin sakuranetin; accumulation in infected rice leaves, antifungal activity and detoxification by fungus.Molecules. 2014 Aug 4;19(8):11404-18.