

Laricitrin 3-O-glucoside

Chemical Properties

CAS No.:	39986-90-8
Formula:	C ₂₂ H ₂₂ O ₁₃
Molecular Weight:	494.1
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Laricitrin 3-O-glucoside has antioxidant property.
Targets(IC ₅₀)	Others: None
In vitro	<p>Petit Verdot grape skins by solid-phase extraction using a combination of reverse-phase and ion-exchanging materials. This procedure allowed us to separate a fraction of anthocyanin-free flavonol 3-O-glycosides that was further split into neutral and acidic subfractions, thus facilitating flavonol identification. METHODS AND RESULTS: By means of semipreparative reverse-phase high-performance liquid chromatography, we isolated several of these flavonol 3-O-glycosides for structural elucidation. The identification of different flavonol 3-O-glycosides was based on liquid chromatography-diode array detection-electrospray ionization-tandem mass spectrometry and NMR data when available. CONCLUSIONS: The results suggest that red grape flavonol 3-O-glycosides comprise three different complete series, according to the nature of the sugar moiety linked to the C-3 position. The 3-O-glucosides were the main derivative of the six possible flavonol aglycones (kaempferol, quercetin, isorhamnetin, myricetin, laricitrin, and syringetin), whereas the 3-O-galactoside derivatives were found as minor compounds for all of the flavonol aglycones. The 3-O-glucuronides are the third kind of red grape flavonol derivatives and normally account as minor compounds for all of the flavonol aglycones, with the exception of quercetin 3-O-glucuronide, which was as abundant as quercetin 3-O-glucoside. In addition, the presence of quercetin 3-O-(6"-rhamnosyl)-glucoside (rutin) was also detected as a trace compound in the skins of Petit Verdot grapes.</p>

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.024 mL	10.119 mL	20.239 mL
5 mM	0.405 mL	2.024 mL	4.048 mL
10 mM	0.202 mL	1.012 mL	2.024 mL
50 mM	0.040 mL	0.202 mL	0.405 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Flavonol 3-O-glycosides series of Vitis vinifera Cv. Petit Verdot red wine grapes. J Agric Food Chem. 2009 Jan 14;57(1):209-19.
2. Comparison on phenolic compounds and antioxidant properties of cabernet sauvignon and merlot wines from four wine grape-growing regions in China. Molecules. 2012 Jul 25;17(8):8804-21.

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