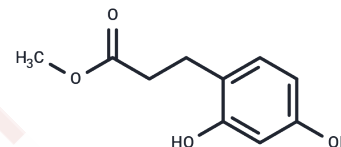


Methyl 3-(2,4-dihydroxyphenyl)propionate

Chemical Properties

CAS No. :	17422-90-1
Formula:	C ₁₀ H ₁₂ O ₄
Molecular Weight:	196.2
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Methyl 3-(2,4-dihydroxyphenyl)propionate is a novel vitamin E derivative that inhibits tyrosinase, which is an antioxidant and inhibits UV-B-induced hyperpigmentation, with potential whitening effects.
Targets(IC50)	Tyrosinase
In vitro	<p>Methods: A novel vitamin E derivative, (6"-hydroxy-2",5",7",8"-tetramethylchroman-2"-yl)methyl 3-(2,4-dihydroxyphenyl)propionate (TM4R), which has a chromanoxo ring and a 4-substituted resorcinol moiety, was synthesized and evaluated for its inhibitory activity against tyrosinase, antioxidant capacity, and lightening effect on ultraviolet B (UVB)-induced hyperpigmentation.</p> <p>Results: Methyl 3-(2,4-dihydroxyphenyl)propionate exhibited potent inhibitory activity against tyrosinase, the rate-limiting enzyme in melanogenesis. The scavenging activity of methyl 3-(2,4-dihydroxyphenyl)propionate against 1,1-diphenyl-2-picrylhydrazyl and hydroxyl radicals was found to be almost the same as that of α-tocopherol. Furthermore, an effective whitening effect was observed after topical application of methyl 3-(2,4-dihydroxyphenyl)propionate on UVB-stimulated pigmented dorsal skin of brown guinea pigs. Conclusion: These Results suggest that methyl 3-(2,4-dihydroxyphenyl)propionate may be an effective skin-whitening agent, possibly by inhibiting tyrosinase activity and biological responses induced by reactive oxygen species.[1]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0968 mL	25.4842 mL	50.9684 mL
5 mM	1.0194 mL	5.0968 mL	10.1937 mL
10 mM	0.5097 mL	2.5484 mL	5.0968 mL
50 mM	0.1019 mL	0.5097 mL	1.0194 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

Shimizu K, et al. Novel vitamin E derivative with 4-substituted resorcinol moiety has both antioxidant and tyrosinase inhibitory properties. *Lipids*. 2001 Dec;36(12):1321-6.

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