Data Sheet (Cat.No.TN4028)

TargetMol
A DRUG SCREENING EXPERT

Euchrestaflavanone B

Chemical Properties

CAS No.:	87402-91-3
Formula:	C25H28O6
Molecular Weight:	424.49
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Euchrestaflavanone B shows antibacterial activity against Gram positive bacteria, Staphylococcus aureus, Bacillus subtilis and Bacillus cereus. Euchrestaflavanone B may function by inhibiting oncogenic disease, at least in part, through the inhibition of protein kinase CKII activity.
Targets(IC_{50})	Antifection: None PARP: None
In vitro	METHODS AND RESULTS: The CKII (EC 2.7.1.37) inhibitory compound was purified from the root barks of Cudrania tricuspidata and identified as (2S)-2-[2,4-dihydroxy-5-(3-methyl-but-2-enyl)-phenyl]-5,7-dihyroxy-6-(3-methyl-but-2-enyl)chroman-4-one (Euchrestaflavanone B). Euchrestaflavanone B was shown to inhibit the phosphotransferase activity of CKII with IC50 of about 78 microM. Steady-state studies revealed that Euchrestaflavanone B acted as a competitive inhibitor with respect to the substrate ATP. A value of 16.4 microM was obtained for the apparent Ki. Concentration of 0.8 microM Euchrestaflavanone B caused 50% growth inhibition of human cancer cells U937 and HeLa. Euchrestaflavanone B-induced cell death was characterized with the cleavage of poly(ADP-ribose) polymerase and procaspase-3, indicating that the inhibitor triggered apoptosis. CONCLUSIONS: Because protein kinase CKII is involved in cell proliferation and oncogenesis, these results suggest that Euchrestaflavanone B may function by inhibiting oncogenic disease, at least in part, through the inhibition of CKII activity.

Solubility Information

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

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.356 mL	11.779 mL	23.558 mL
5 mM	0.471 mL	2.356 mL	4.712 mL
10 mM	0.236 mL	1.178 mL	2.356 mL
50 mM	0.047 mL	0.236 mL	0.471 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 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Inhibition of protein kinase CKII activity by euchrestaflavanone B purified from Cudrania tricuspidata. Oncol Res. 2005;15(6):327-32.

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