

Product Name : Methyl rosmarinate

Synonyms : —

Cat No. : M22816

CAS Number : 99353-00-1

Molecular Formula : C₁₉H₁₈O₈

Formula Weight : 374.4

Chemical Name : —

Description

Methyl rosmarinate is a noncompetitive tyrosinase inhibitor which is isolated from *Rabdosia serra*, with an IC₅₀ of 0.28 mM for mushroom tyrosinase. Methyl rosmarinate shows antioxidative, and antifungal activities. It has inhibitory activities against tyrosinase, α-glucosidase, and matrix metalloproteinase-1 (MMP-1). An initial microtiter dilution assay indicated activity of compounds against *S. camosus* LTH1502, whereas esters with chain lengths, RA, n-Methyl rosmarinate (RE1), n-dodecyl rosmarinate (RE12), and n-octadecyl rosmarinate (RE18) were used in a time-kill assay *S. camosus* LTH1502. Compounds were added at 0.75 mM in the log phase, 5 mM in the exponential phase, 10 mM in the stationary phase. RA had no effect in the lag and exponential phase but decreased cell counts during the stationary phase. In contrast, RE1 and RE12 decreased cell number in all three phase, will RE12 reducing counts most rapidly. Addition of RE18 did not affect regardless of the growth phase.

Pathway : Proteasome/Ubiquitin

Target : Tyrosinase

Receptor : Tyrosinase; Antifection; MMP

Solubility : —

SMILES : OC1=C(O)C=CC(/C=C/C(O[C@@H](C(OC)=O)CC2=CC(O)=C(O)C=C2)=O)=C1

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Impact of fatty acid chain length of rosmarinate esters on their antimicrobial activity against *Staphylococcus carnosus* LTH1502 and *Escherichia coli* K-12 LTH4263. *J Food Prot.* 2013 Sep;76(9):1539-48.