Rosmanol
Item No. 35143

CAS Registry No.: 80225-53-2
Formal Name: (4aR,9S,10S,10aS)-1,3,4,9,10,10a-hexahydro-5,6,9-trihydroxy-1,1-dimethyl-7-(1-methylethyl)-2H-10,4a-(epoxymethano)phenanthren-12-one
MF: C20H26O5
FW: 346.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/Salvia officinalis

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rosmanol is supplied as a solid. A stock solution may be made by dissolving the rosmanol in the solvent of choice, which should be purged with an inert gas. Rosmanol is soluble in the organic solvent DMSO.

Description

Rosmanol is a polyphenol that has been found in R. officinalis and has diverse biological activities.1-3 It is an inhibitor of α-glucosidase and α-amylase (IC50 = 16.4 and 40.9 µg/ml, respectively) and has antioxidant activity in a Trolox equivalent absorbance capacity (TEAC) assay.2 Rosmanol activates the mitochondrial and death receptor apoptosis pathways and induces apoptosis in COLO 205 colorectal cancer cells (IC50 = ~42 µM).3 It also inhibits LPS-induced production of prostaglandin E2 (PGE2), as well as reduces the activity of NF-κB, inducible nitric oxide synthase (iNOS), and COX-2 induced by LPS, in RAW 264.7 macrophages when used at concentrations of 2.5 and 5 µM.4 Rosmanol (30-100 mg/kg) increases the latency to tail withdrawal in the hot plate test, decreases immobility in the forced swim test, and increases the time spent in the open arms of the elevated plus maze in mice, indicating antinociceptive, antidepressant-like, and anxiolytic-like activities, respectively.4

References