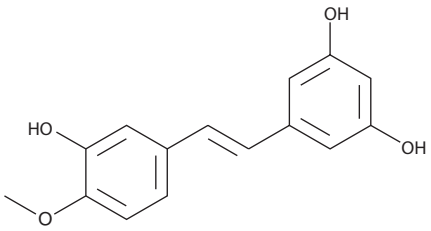
PRODUCT INFORMATION

Rhapontigenin

Item No. 13293

CAS Registry No.:	500-65-2
Formal Name:	5-[(1E)-2-(3-hydroxy-4-methoxyphenyl) ethenyl]-1,3-benzenediol
MF:	$C_{15}H_{14}O_4$
FW:	258.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 222, 326 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Rhapontigenin is supplied as a crystalline solid. A stock solution may be made by dissolving the rhapontigenin in the solvent of choice, which should be purged with an inert gas. Rhapontigenin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of rhapontigenin in these solvents is approximately 30 mg/ml.

Rhapontigenin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rhapontigenin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Rhapontigenin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Rhapontigenin is a natural analog of resveratrol with antioxidant and anti-cancer activity. It is a mechanism-based, selective inactivator of cytochrome P450 1A1 (IC_{50} = 400 nM), an aryl hydrocarbon hydroxylase which activates polycyclic aromatic hydrocarbons that act as procarcinogens.[1] At higher concentrations, rhapontigenin inhibits the proliferation of HepG2 and HL-60R cancer cell lines (IC_{50} = 48 µM).[2,3]

References

1. Chun, Y.J., Ryu, S.Y., Jeong, T.C., *et al.* Mechanism-based inhibition of human cytochrome P450 1A1 by rhapontigenin. *Drug Metab. Dispos.* **29(4)**, 389-393 (2001).
2. Roupe, K.A., Helms, G.L., Halls, S.C., *et al.* Preparative enzymatic synthesis and HPLC analysis of rhapontigenin: Applications to metabolism, pharmacokinetics and anti-cancer studies. *J. Pharm. Pharm. Sci.* **8(3)**, 374-386 (2005).
3. Roberti, M., Pizzirani, D., Simoni, D., *et al.* Synthesis and biological evaluation of resveratrol and analogues as apoptosis-inducing agents. *J. Med. Chem.* **46(16)**, 3546-3554 (2003).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM