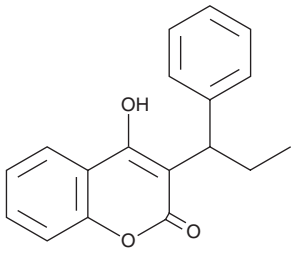
PRODUCT INFORMATION

Phenprocoumon

Item No. 31730

CAS Registry No.:	435-97-2
Formal Name:	4-hydroxy-3-(1-phenylpropyl)-2H-1-benzopyran-2-one
Synonym:	Ro 1-4849
MF:	$C_{18}H_{16}O_3$
FW:	280.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 276, 285, 309 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

Phenprocoumon is supplied as a crystalline solid. A stock solution may be made by dissolving the phenprocoumon in the solvent of choice, which should be purged with an inert gas. Phenprocoumon is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of phenprocoumon in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Phenprocoumon is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, phenprocoumon should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Phenprocoumon has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phenprocoumon is an anticoagulant and vitamin K antagonist.[1,2] It inhibits the activity of wild-type vitamin K epoxide reductase (VKOR; IC_{50} = 4.2 nM), as well as a variety of mutant VKORs (IC_{50}s = 5.1-835 nM), in cell-based reporter assays.[1] Phenprocoumon inhibits prothrombin complex synthesis in rats in a dose-dependent manner.[2] Formulations containing phenprocoumon have previously been used in the prevention and treatment of thromboembolic disorders.

References

1. Chen, X., Jin, D.-Y., Stafford, D.W., *et al.* Evaluation of oral anticoagulants with vitamin K epoxide reductase in its native milieu. *Blood* **132(18)**, 1974-1984 (2018).
2. Schmidt, W.E. and Jähnchen, E. Stereoselective drug distribution and anticoagulant potency of the enantiomers of phenprocoumon in rats. *J. Pharm. Pharmacol.* **29(5)**, 266-271 (1977).

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