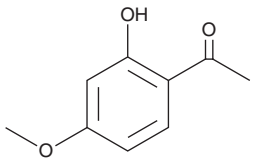
PRODUCT INFORMATION

Paeonol

Item No. 19862

CAS Registry No.:	552-41-0
Formal Name:	1-(2-hydroxy-4-methoxyphenyl)-ethanone
Synonyms:	2'-hydroxy-4'-Methoxyacetophenone, NSC 401442
MF:	$C_9H_{10}O_3$
FW:	166.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 212, 229, 274, 314 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years
Item Origin:	Plant/*Paeonia suffruticosa*



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

Laboratory Procedures

Paeonol is supplied as a crystalline solid. A stock solution may be made by dissolving the paeonol in the solvent of choice, which should be purged with an inert gas. Paeonol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of paeonol in ethanol and DMSO is approximately 30 mg/ml and approximately 20 mg/ml in DMF.

Paeonol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, paeonol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Paeonol has a solubility of approximately 0.12 mg/ml in a 1:7 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Paeonol is a phenol that has been found in *Paeonia* and has diverse biological activities.[1-4] It inhibits LPS- and IFN-γ-induced migration and production of reactive oxygen species (ROS) in BV-2 microglia when used at concentrations of 10 and 30 µM.[1] Paeonol inhibits histamine release from rat peritoneal mast cells induced by compound 48/80 (Item No. 22173) and reduces mortality in a mouse model of compound 48/80-induced anaphylactic shock when administered at a dose of 0.5 mg per animal.[2] It reduces hepatic necrosis and serum levels of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) in a mouse model of hepatotoxicity induced by acetaminophen (Item No. 10024) when administered at a dose of 100 mg/kg.[3] Paeonol (30, 50, and 100 mg/kg) inhibits carrageenan-induced thermal hyperalgesia and production of nitric oxide (NO) and prostaglandin E_2 (PGE_2; Item No. 14010) in rats.[4]

References

1. Lin., C., Lin, H.-Y., Chen, J.-H., *et al*. Effects of paeonol on anti-neuroinflammatory responses in microglial cells. *Int. J. Mol. Sci.* **16(4)**, 8844-8860 (2015).
2. Kim, S.H., Kim, S.-A., Park, M.-K., *et al*. Paeonol inhibits anaphylactic reaction by regulating histamine and TNF-α. *Int. Immunopharmacol.* **4(2)**, 279-287 (2004).
3. Ding, Y., Li, Q., Xu, Y., *et al*. Attenuating oxidative stress by paeonol protected against acetaminophen-induced hepatotoxicity in mice. **PLoS One 11(5)**, (2016).
4. Chou, T.-C. Anti-inflammatory and analgesic effects of paeonol in carrageenan-evoked thermal hyperalgesia. *Br. J. Pharmac.* **139(6)**, 1146-1152 (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