4-Methylbenzylidene camphor
Item No. 13840

CAS Registry No.: 36861-47-9
Formal Name: 1,7,7-trimethyl-3-[(4-methylphenyl)methylene]-bicyclo[2.2.1]heptan-2-one
Synonyms: Enzacamene, Eusolex 6300, 4-MBC, Neo Heliopan MBC, Parsol 500, Uvinul MBC 95
MF: C_{18}H_{22}O
FW: 254.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ max: 226, 299 nm

Laboratory Procedures
For long term storage, we suggest that 4-methylbenzylidene camphor (4-MBC) be stored as supplied at ~20°C. It should be stable for at least two years.

4-MBC is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-MBC in the solvent of choice. 4-MBC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 4-MBC in these solvents is approximately 20 mg/ml.

4-MBC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-MBC should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-MBC has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

4-MBC is an ultraviolet light blocker used in cosmetics and sunscreen preparations that also has estrogenic activities.1,2 It has estrogenic activity in fish and in mammals, binding competitively to estrogen receptors and stimulating transactivation.1 In addition to reducing receptor sensitivity to estradiol, 4-MBC directs dose-dependent changes in the expression of estrogen receptor subtypes, progesterone receptor, and androgen receptor. This results in changes in reproductive organ and brain development in both males and females.1,2 When applied topically, it is absorbed systemically and can be detected in urine.3

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/13840

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent to your institution.

WARRANTY AND LIMITATION OF REMEDY
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The limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

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