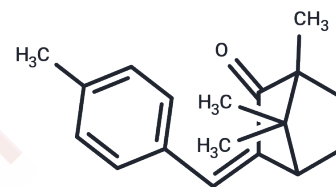


4-Methylbenzylidene camphor

Chemical Properties

CAS No. :	36861-47-9
Formula:	C ₁₈ H ₂₂ O
Molecular Weight:	254.37
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	4-Methylbenzylidene camphor is an ultraviolet light blocker used in cosmetics and sunscreen preparations ,specifically UV B radiation, also has estrogenic activities.
Targets(IC50)	Apoptosis,ERK,Akt,Cholinesterase (ChE),PI3K
In vivo	4-Methylbenzylidene camphor has estrogenic activity in fish and in mammals, binding competitively to estrogen receptors and stimulating transactivation.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[1]

Solubility Information

Solubility	DMSO: 18.33 mg/mL (72.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1.5 mg/mL (5.9 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9313 mL	19.6564 mL	39.3128 mL
5 mM	0.7863 mL	3.9313 mL	7.8626 mL
10 mM	0.3931 mL	1.9656 mL	3.9313 mL
50 mM	0.0786 mL	0.3931 mL	0.7863 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Stefan D , Kirsten M , Margret S , et al. Estrogen Target Gene Regulation and Coactivator Expression in Rat Uterus after Developmental Exposure to the Ultraviolet Filter 4-Methylbenzylidene Camphor[J]. *Endocrinology*(5):5.
Changwon, Yang, Whasun, et al. 4-Methylbenzylidene-camphor inhibits proliferation and induces reactive oxygen species-mediated apoptosis of human trophoblast cells.[J]. *Reproductive toxicology* (Elmsford, N.Y.), 2018.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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