

Product Data Sheet

Product Name: Capsiate
Cat. No.: GC49433

Chemical Properties

Cas. No. 205687-01-0

SMILES CC(C)/C=C/CCCCC(OCC1=CC(OC)=C(C=C1)O)=O

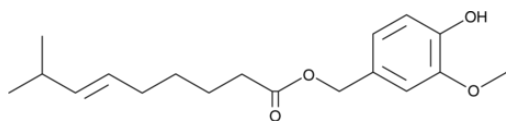
Formula C₁₈H₂₆O₄ M.Wt 306.4

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 30 mg/ml
Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Capsiate is a non-pungent analog of capsaicin that has been found in *C. annuum* and has diverse biological activities.^{1,2,3,4} It inhibits Src in, as well as VEGF-induced proliferation of and tube formation by, human umbilical vein endothelial cells (HUVECs) when used at concentrations ranging from 5 to 25 µM.¹ Capsiate activates transient receptor potential vanilloid 1 (TRPV1) in HEK293 cells expressing the human channel (EC₅₀ = 290 nM) and induces licking and biting behaviors, markers of nociception, in mice.² Topical application of capsiate reduces antigen-induced increases in ear thickness in a mouse model of passive cutaneous anaphylaxis and decreases epidermal thickness and eosinophil and mast cell infiltration in a mouse model of atopic dermatitis.³ Capsiate (10 mg/kg) decreases body weight gain and perirenal fat weight, as well as increases oxygen consumption, fat oxidation, and carbohydrate oxidation, in a mouse model of *ad libitum* feeding-induced weight gain.⁴

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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1. Pyun, B.-J., Choi, S., Lee, Y., et al. Capsiate, a nonpungent capsaicin-like compound, inhibits angiogenesis and vascular permeability via a direct inhibition of Src kinase activity. *Cancer Res.* 68(1):227-235(2008)

2. Iida, Y., Kobata, T.M., Morita, A., et al. TRPV1 activation and induction of nociceptive response by a non-pungent capsaicin-like compound, capsiate. *Neuropharmacology* 44(7):958-967(2003)

3. Lee, J.J., Lee, Y.S., Lee, E.-J., et al. Capsiate inhibits DNFB-induced atopic dermatitis in NC/Nga mice through mast cell and CD4+ T-cell inactivation. *J. Invest. Dermatol.* 135(8):1977-1985(2015)

4. Haramizu, S., Kawabata, F., Ohnuki, K., et al. Capsiate, a non-pungent capsaicin analog, reduces body fat without weight rebound like swimming exercise in mice. *Biomed. Res.* 32(4):279-284(2011)

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