

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



Product Information



Auraptene

Item No. 14000

CAS Registry No.: 495-02-3

Formal Name: 7-[[(2E)-3,7-dimethyl-2,6-octadien-

1-yl]oxy]-2H-1-benzopyran-2-one

Synonym: 7-Geranyloxycoumarin

MF: $C_{19}H_{22}O_3$ FW: 298.4 **Purity:** ≥98%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid UV/Vis.: λ_{max} : 323 nm

Laboratory Procedures

For long term storage, we suggest that auraptene be stored as supplied at -20°C. It should be stable for at least two years. Auraptene is supplied as a crystalline solid. A stock solution may be made by dissolving the auraptene in the solvent of choice. Auraptene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of auraptene in ethanol and DMSO is approximately 12 mg/ml and approximately 14 mg/ml in DMF.

Auraptene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, auraptene should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Auraptene has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution

Auraptene is a coumarin derived from citrus plants that bears a geranyloxyl moiety at its C-7. It has anti-inflammatory, anti-carcinogenic, anti-bacterial, neuroprotective, and hepatoprotective activities. 1-5 It inhibits leukocyte activation and induces phase II enzymes during the initiation phase of carcinogenesis. When examined for its potential use in Alzheimer's disease treatment, auraptene was shown to inhibit β -secretase (BACE1) activity with an IC₅₀ value of 345.1 μ M.⁶

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- Krishnan, P., Yan, K.J., Windler, D., et al. Citrus auraptene suppresses cyclin D1 and significantly delays N-methyl nitrosourea induced mammary carcinogenesis in female Sprague-Dawley rats. BMC Cancer 9, (2009).
- Takeda, K., Utsunomiya, H., Kakiuchi, S., et al. Citrus auraptene reduces Helicobacter pylori colonization of glandular stomach lesions in Mongolian gerbils. J. Oleo Sci. 56(5), 253-260 (2007).
- Furukawa, Y., Watanabe, S., Okuyama, S., et al. Neurotrophic effect of Citrus auraptene: Neuritogenic activity in PC12 cells. Int. J. Mol. Sci. 13, 5338-5347 (2012).
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- Marumoto, S. and Miyazawa, M. Structure-activity relationships for naturally occurring coumarins as β-secretase inhibitor. Bioorg. Med. Chem. 20(2), 784-788 (2012).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14000

WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

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 Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical

Mailing address

1180 E. Ellsworth Road Ann Arbor, MI 48108 USA

Phone

(800) 364-9897 (734) 971-3335

(734) 971-3640

custserv@caymanchem.com

www.caymanchem.com