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-benzoopyran-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}^\text{UV/Vis.} 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 for more than one day.

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.1 When examined for its potential use in Alzheimer's disease treatment, auraptene was shown to inhibit β-secretase (BACE1) activity with an IC_{50} value of 345.1 μM.6

References


Related Products

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

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

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