

Product Data Sheet

Product Name: 5-LOX-IN-9

Cat. No.: GC79706

Chemical Properties

Cas. No. 2668-47-5

Formula C₂₀H₂₆O

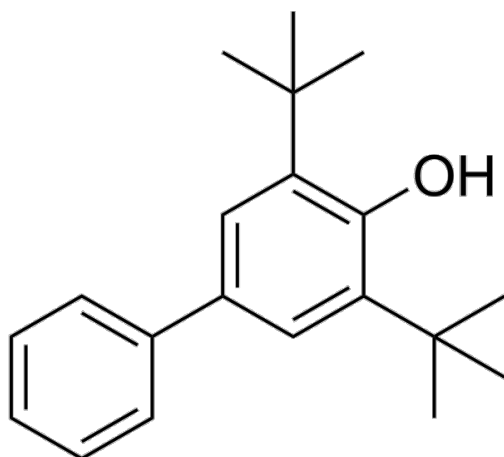
M.Wt 282.43

Solubility Storage Store at 4°C, stored under nitrogen

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

5-LOX-IN-9 is a 5-lipoxygenase and cyclooxygenase inhibitor, with an IC₅₀ of 0.2 pM against guinea pig 5-LOX and an IC₅₀ of 0.7 pM against bovine COX. 5-LOX-IN-9 inhibits 5-lipoxygenase via a redox-mediated mechanism. 5-LOX-IN-9 inhibits cyclooxygenase through hydrogen donor action and hydrophobicity-dependent activity [1].

In Vitro, 5-LOX-IN-9 (Compound 3) acts as a dual inhibitor, potently inhibiting bovine seminal vesicle COX with an IC₅₀ of 7 × 10⁻⁷ μM and guinea pig lung 5-LOX with an IC₅₀ of 2 × 10⁻⁷ μM [1]. 5-LOX-

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

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IN-9 in its cis-b conformation exhibits an MEP map with an extended negative region around its R3 aromatic ring, a feature associated with dual COX/5-LOX inhibitory activity^[1]. 5-LOX-IN-9 in its cis-b conformation has dual hydrophobic interaction areas (consistent with dual COX/5-LOX inhibition) and a strong ferric iron cation interaction, which correlates with its potent 5-LOX inhibitory activity^[1].

References:

[1]. Ruiz J, et al. QSAR study of dual cyclooxygenase and 5-lipoxygenase inhibitors 2,6-di-tert-butylphenol derivatives. Bioorganic & medicinal chemistry. 2003 Sep 15;11(19):4207-16.

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