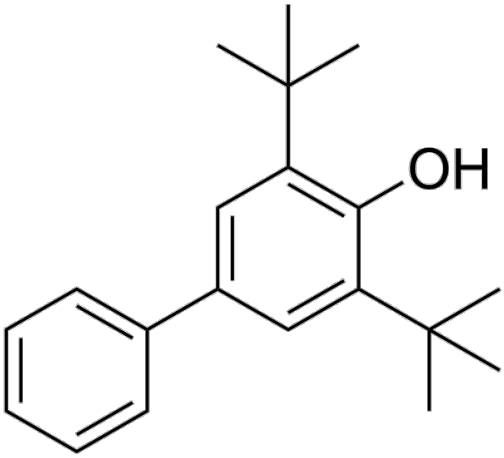
Product Data Sheet

Product Name: 5-LOX-IN-9
Cat. No.: GC79706

Chemical Properties

Cas. No.	2668-47-5		
Formula	$C_{20}H_{26}O$	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 IC_{50} of 0.2 pM against guinea pig 5-LOX and an IC_{50} 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 IC_{50} of 7 × 10-7 μM and guinea pig lung 5-LOX with an IC_{50} of 2 × 10-7 μM [1]. 5-LOX-

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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.

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

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