Product Data Sheet

Product Name: 5-Lipoxygenase-In-1
Cat. No.: GC31997

Chemical Properties

Cas. No.	125235-15-6		
SMILES	O=C(C(C)(C)N1CC)N(C2=CC=C(N3CCN(C4=CC=C(O)C=C4)CC3)C=C2)C1=S		
Formula	$C_{23}H_{28}N_4O_2S$	M.Wt	424.56
Solubility	DMSO: 250 mg/mL (588.84 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	5-Lipoxygenase-In-1		

Protocol

Kinase experiment:	The enzyme activity is assayed at 37°C in a reaction mixture (total volume of 0.4 mL) containing 50 mM sodium phosphate buffer (pH7.4), 2mM ATP, 2mM CaC12, 2mM glutathion, 5-Lipoxygenase-In-1 (10-5 to 10-8 M) and the enzyme (60 mg protein). For inhibition studies, concentration response curves and IC50-values are obtained by determining the percentage of inhibition of lipoxygenase products formation in the presence of 5-Lipoxygenase-In-1 compared with the uninhibited control[1].

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Animal experiment:

Mice[1]Unfasted male Swiss mice weighing 24-26 g are used in the experiments. The mice are treated orally with 5-Lipoxygenase-In-1 dissolved in a volume of 150 mL of either polyethyleneglycol (PEG 200) of hydroxypropyl cyclodextrine at doses varying between 1.25 and 40 mg per kg bodyweight. In control experiments the mice are administered an indentical amount of solvent alone. One hour after treatment there is injected intravenously an isotonic saline solution containing 60 mg/mL Dextran T5000 and 13 mg/mL pontamine sky-blue dye in a volume of 0.1 mL per 10 bodyweight. One hour and forty-five minutes later the animals are sacrificed by ether and their ears are removed. Extraction and quantification of the extravasated dye are performed[1].

References:

[1]. Wauwe V, et al. 5-Lipoxygenase-inhibiting 4-(4-phenyl-1-piperazinyl)phenols and their preparation and pharmaceutical compositions. EP0331232A2

Background

5-Lipoxygenase-In-1 is a 5-Lipoxygenase inhibitor extracted from patent EP 331232 A2, table 4, compound example 4.10.

[1]. Wauwe V, et al. 5-Lipoxygenase-inhibiting 4-(4-phenyl-1-piperazinyl)phenols and their preparation and pharmaceutical compositions. EP0331232A2

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