5-LOX-IN-4

Cat. No.: HY-U00308

CAS No.: 125235-15-6

Molecular Formula: $C_{23}H_{28}N_4O_2S$

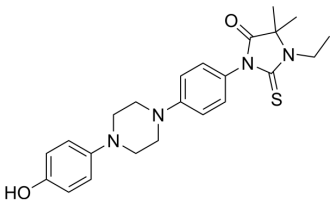
Molecular Weight: 424.56

Target: Lipoxygenase

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (588.84 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3554 mL	11.7769 mL	23.5538 mL
	5 mM	0.4711 mL	2.3554 mL	4.7108 mL
	10 mM	0.2355 mL	1.1777 mL	2.3554 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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

IC_{50} & Target

5-Lipoxygenase

PROTOCOL

Kinase Assay [1]

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 $CaC1_2$, 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 IC_{50}-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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration [1]	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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[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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