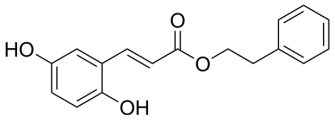
5-LOX-IN-2

Cat. No.:	HY-138939
CAS No.:	179691-97-5
Molecular Formula:	$C_{17}H_{16}O_4$
Molecular Weight:	284.31
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 : 100 mg/mL (351.73 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.5173 mL	17.5864 mL	35.1729 mL
5 mM	0.7035 mL	3.5173 mL	7.0346 mL
10 mM	0.3517 mL	1.7586 mL	3.5173 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

5-LOX-IN-2, an inhibitor of 5-lipoxygenase (5-LOX) with an IC_{50} of 0.33 μM, inhibits 5-LOX in a dose-dependent manner . 5-LOX-IN-2, reduces the cell viability of renal cancer cells and induces apoptosis, can be used for cancer research[1].

IC_{50} & Target

5-LOX
0.33 μM (IC_{50})

In Vitro

5-LOX-IN-2 (Compound 10b) (0-100 μM; 4 days) reduces the cell viability of renal cancer cells[1].
5-LOX-IN-2 (Compound 10b) (0-10 μM; 24 hours) increases in LC3B and p62 expression, blocks of the autophagic flux in RCC4 cells, and induces apoptosis by activation of the caspase-3 pathway leading to cell death[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	RCC4, RCC10, 786.0 cells
Concentration:	0-100 μM
Incubation Time:	4 days
Result:	Reduced the cell viability of renal cancer cells and was more selective toward RCC4 and 786.0 cells which are deficient for the Von Hippel-Lindau (VHL) tumor suppressor gene.

Western Blot Analysis[1]

Cell Line:	RCC4, RCC10, 786.0 cells
Concentration:	0-10 μM
Incubation Time:	24 hours
Result:	Increased in LC3B and p62 expression, blocked of the autophagic flux in RCC4 cells. Stimulated in a dose ependent manner the cleavage of pro-caspase-3 only in the RCC4 cells which lack the VHL tumor suppressor.

REFERENCES

[1]. Selka A, et.al. Discovery of a novel 2,5-dihydroxycinnamic acid-based 5-lipoxygenase inhibitor that induces apoptosis and may impair autophagic flux in RCC4 renal cancer cells. Eur J Med Chem. 2019 Oct 1;179:347-357.

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