Asperphenamate

Cat. No.: HY-129578

CAS No.: 63631-36-7

Molecular Formula: $C_{32}H_{30}N_2O_4$

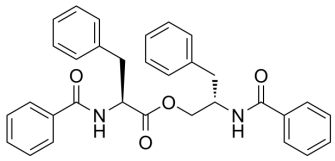
Molecular Weight: 506.59

Target: Autophagy; Cathepsin

Pathway: Autophagy; 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 (197.40 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9740 mL	9.8699 mL	19.7398 mL
	5 mM	0.3948 mL	1.9740 mL	3.9480 mL
	10 mM	0.1974 mL	0.9870 mL	1.9740 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: ≥ 2.5 mg/mL (4.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Asperphenamate, a fungal metabolite of Aspergillus flatiipes with anti-cancer effect, exhibits IC_{50} values of 92.3 μM, 96.5 μM and 97.9 μM in T47D, MDA-MB-231 and HL-60 cells, respectively[1][2].

In Vitro

Asperphenamate can inhibit cancer cell proliferation by fully inducing autophagy. asperphenamate showed inhibition effects against cathepsin L. At the same time, it also displayed weak inhibitory ability against cathepsin S.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Alice M.Clark, et al. Synthesis of asperphenamate, a novel fungal metabolite. Phytochemistry

[2]. LeiYuan, et al. Total synthesis and anticancer activity studies of the stereoisomers of asperphenamate and patriscabratine. Chinese Chemical Letters Volume 21, Issue 2, February 2010, Pages 155-158.

[3]. Yuan L, et al. Discovery of novel cathepsin inhibitors with potent anti-metastatic effects in breast cancer cells. Bioorg Chem. 2018 Dec;81:672-680.

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