Cathepsin L/S-IN-1

Cat. No.: HY-152204

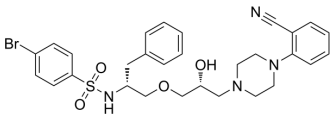
Molecular Formula: $C_{29}H_{33}BrN_4O_4S$

Molecular Weight: 613.57

Target: Cathepsin

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Cathepsin L/S-IN-1 is a dual inhibitor of Cathepsin L and Cathepsin S with IC_{50}s of 4.10 μM and 1.79 μM, respectively. Cathepsin L/S-IN-1 shows a significant antimetastatic and invasive effects on pancreatic cancer BxPC-3 and PANC-1 cells[1].

IC_{50} & Target

cathepsin L	cathepsin S
4.10 μM (IC_{50})	1.79 μM (IC_{50})

In Vitro

Cathepsin L/S-IN-1 (compound B1a) (0-25 μM; 48 h) shows noncytotoxic agaisnt pancreatic cancer BxPC-3 and PANC-1 cells [1].

Cathepsin L/S-IN-1 (0-25 μM; 48 h) inhibits Cathepsin L and S activities without decreasing the mRNA level of them[1].

Cathepsin L/S-IN-1 (0-25 μM; 48 h) inhibits the migration and invasion of pancreatic cancer BxPC-3 and PANC-1 cells[1].

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

Cell Viability Assay[1]

Cell Line:	BxPC-3 and PANC-1 cells
Concentration:	0, 6.25, 12.5, and 25 μM
Incubation Time:	48 hours
Result:	Failed to suppress the viability of pancreatic cancer cells.

REFERENCES

[1]. Huang H, et al. Design and synthesis of dual cathepsin L and S inhibitors and antimetastatic activity evaluation in pancreatic cancer cells. Bioorg Med Chem Lett. 2022 Nov 23;80:129087.

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