Inhibitors

Product Data Sheet

Z-Phe-Tyr(tBu)-diazomethylketone

Cat. No.: HY-138208 CAS No.: 114014-15-2 Molecular Formula: $C_{31}H_{34}N_4O_5$ Molecular Weight: 542.63

Target: Cathepsin; SARS-CoV

Pathway: Metabolic Enzyme/Protease; Anti-infection

Storage: Powder -20°C 3 years

In solvent -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 250 mg/mL (460.72 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.8429 mL	9.2144 mL	18.4288 mL
	5 mM	0.3686 mL	1.8429 mL	3.6858 mL
	10 mM	0.1843 mL	0.9214 mL	1.8429 mL

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

BIOLOGICAL ACTIVITY

Description	$\label{lem:continuous} Z-Phe-Tyr(tBu)-diazomethylketone\ is\ a\ potent\ cathepsin\ L\ inhibitor.\ Z-Phe-Tyr(tBu)-diazomethylketone\ mediates\ reovirus\ disassembly.\ Z-Phe-Tyr(tBu)-diazomethylketone\ decreases\ viral\ detection^{[1][2]}.$
IC ₅₀ & Target	cathepsin L
In Vitro	Z-Phe-Tyr(tBu)-diazomethylketone (3.3, $10 \mu M$; $3 h$) resultes in reovirus inefficient proteolytic disassembly of viral outercapsid proteins and decreases viral yields in L929 cells ^[1] . Z-Phe-Tyr(tBu)-diazomethylketone decreases viral detection to about 10% of vehicle-treated controls in SARS-CoV-2 infection of cardiomyocytes (CMs) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ebert DH, et al. Cathepsin L and cathepsin B mediate reovirus disassembly in murine fibroblast cells. J Biol Chem. 2002 Jul 5;277(27):24609-17.

[2]. Perez-Bermejo JA, et al. SA Apr 21;13(590):eabf7872.	RS-CoV-2 infection of huma	n iPSC-derived cardiac cells reflec	cts cytopathic features in hearts of patier	ts with COVID-19. Sci Transl Med. 2021
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