RIDR-PI-103

Cat. No.: HY-144876

CAS No.: 2581114-71-6

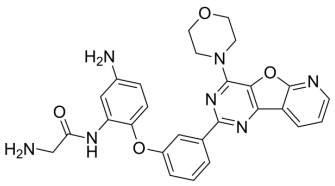
Molecular Formula: $C_{27}H_{25}N_7O_4$

Molecular Weight: 511.53

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (195.49 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9549 mL	9.7746 mL	19.5492 mL
	5 mM	0.3910 mL	1.9549 mL	3.9098 mL
	10 mM	0.1955 mL	0.9775 mL	1.9549 mL

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

BIOLOGICAL ACTIVITY

Description

RIDR-PI-103 is a reactive oxygen species (ROS)-induced drug release prodrug with a self-cyclizing moiety linked to a pan-PI3K inhibitor (PI-103). Doxorubicin and RIDR-PI-103 shows a synergistic effect in MDA-MB-361 and MDA-MB-231 cells to inhibit cancer cell proliferation[1][2].

REFERENCES

[1]. Mishra R, et al. Phosphoinositide 3-Kinase (PI3K) Reactive Oxygen Species (ROS)-Activated Prodrug in Combination with Anthracycline Impairs PI3K Signaling, Increases DNA Damage Response and Reduces Breast Cancer Cell Growth. Int J Mol Sci. 2021;22(4):2088. Published 2021 Feb 19.

[2]. Rosalin Mishra, et al. Efficacy of RIDRPI103, a reactive oxygen species (ROS) activated prodrug in treatment of breast cancer [abstract]. In: Proceedings of the 2019 San Antonio Breast Cancer Symposium; 2019 Dec 10-14; San Antonio, TX. Philadelphia (PA): AACR; Cancer Res 2020;80(4 Suppl):Abstract nr P3-10-04.

Caution: Product has not been fully validated for medical applications. For research use only.

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