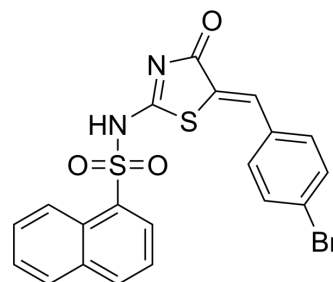


Pitstop 2

Cat. No.:	HY-115604
CAS No.:	1419320-73-2
Molecular Formula:	C ₂₀ H ₁₃ BrN ₂ O ₃ S ₂
Molecular Weight:	473.36
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 2 years; -20°C, 1 year (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (105.63 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.1126 mL	10.5628 mL	21.1256 mL
				5 mM	0.4225 mL	2.1126 mL	4.2251 mL
				10 mM	0.2113 mL	1.0563 mL	2.1126 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 (5.28 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Pitstop 2 is a clathrin inhibitor which inhibits clathrin-mediated endocytosis (CME) by associating with the terminal domain of clathrin. Pitstop 2 has the potential for anti-cancer research ^{[1][2]} .	
In Vitro	Pitstop 2 (20-40 μM; 30 min) inhibits the endocytosis of transferrin in J774A.1 macrophages and does not compromise cell viability ^[1] . Pitstop 2 (20-40 μM; 30 min) does not affect the internalization of cholera toxin B in J774A.1 macrophages ^[1] . Pitstop 2 (0.001-100 μM; 6 h) inhibits the mitotic spindle and impairs mitotic progression in HeLa cells ^[2] . Pitstop 2 (1-30 μM; 24 h) induces apoptosis and inhibits cell growth in dividing cancer cells ^[2] . Pitstop 2 (1-30 μM; 48 h) does not affect the growth and viability of non-tumourigenic NIH3T3 fibroblasts ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[2]	
	Cell Line:	HeLa cells

Concentration:	1, 3, 10, 30 μ M
Incubation Time:	24 hours
Result:	Reduced the total number of viable HeLa cells markedly in a dose-dependent manner.

CUSTOMER VALIDATION

- Immunity. 2022 Aug 9;55(8):1370-1385.e8.
- Adv Funct Mater. 2024 May 1.
- ACS Nano. 2024 Feb 12.
- Carbohydr Polym. 2023 Apr 1;305:120533.
- Int J Biol Macromol. 2024 Aug 5;277(Pt 3):134517.

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REFERENCES

- [1]. Kumar GA, et, al. Leishmania donovani Internalizes into Host Cells via Caveolin-mediated Endocytosis. Sci Rep. 2019 Sep 2; 9(1): 12636.
- [2]. Smith CM, et, al. Inhibition of clathrin by pitstop 2 activates the spindle assembly checkpoint and induces cell death in dividing HeLa cancer cells. Mol Cancer. 2013 Jan 17; 12:4.

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

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