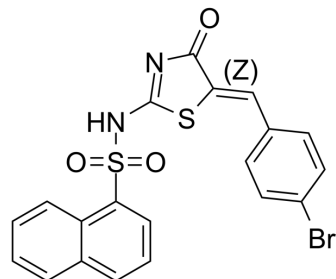


Pitstop 2

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, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (132.03 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	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.

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 μM
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.
- Bioeng Transl Med. 26 July 2022.
- Traffic. 2022 Nov 22.
- Research Square Preprint. 2021 Oct.

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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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