Cytochalasin D

Cat. No.: HY-N6682

CAS No.: 22144-77-0

Molecular Formula: $C_{30}H_{37}NO_6$

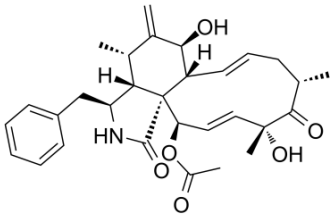
Molecular Weight: 507.62

Target: Arp2/3 Complex; Bacterial; Antibiotic; YAP

Pathway: Cytoskeleton; Anti-infection; Stem Cell/Wnt

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (197.00 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9700 mL	9.8499 mL	19.6998 mL
	5 mM	0.3940 mL	1.9700 mL	3.9400 mL
	10 mM	0.1970 mL	0.9850 mL	1.9700 mL

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

BIOLOGICAL ACTIVITY

Description

Cytochalasin D (Zygosporin A; NSC 209835) is a potent and cell-permeable inhibitor of actin polymerization derived from fungus, inhibits the G-actin–cofilin interaction by binding to G-actin. Cytochalasin D (Zygosporin A; NSC 209835) also inhibits the binding of cofilin to F-actin and decreases the rate of both actin polymerization and depolymerization in living cells[1][2][3].Cytochalasin D can reduce exosome release, in turn reducing the amount of survivin present in the tumour environment [4]. Cytochalasin D induces phosphorylation and cytoplasmic retention of YAP[5].

IC_{50} & Target

G-actin[1]

CUSTOMER VALIDATION

- Mat Sci Eng C-Mater. 2021, 111939.
- Langmuir. 2020 Sep 29;36(38):11374-11382.
- Virus Res. 2020 Jan 15;276:197806.

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REFERENCES

[1]. Shoji K, et al. Cytochalasin D acts as an inhibitor of the actin-cofilin interaction. Biochem Biophys Res Commun. 2012 Jul 20;424(1):52-7.

[2]. Flanagan MD, et al. Cytochalasins block actin filament elongation by binding to high affinity sites associated with F-actin. J Biol Chem. 1980 Feb 10;255(3):835-8.

[3]. May JA, et al. GPIIb-IIIa antagonists cause rapid disaggregation of platelets pre-treated with cytochalasin D. Evidence that the stability of platelet aggregates depends on normal cytoskeletal assembly. Platelets. 1998;9(3-4):227-32.

[4]. Mariadelva Catalano, et al. Inhibiting extracellular vesicles formation and release: a review of EV inhibitors. J Extracell Vesicles. 2020; 9(1): 1703244.

[5]. Ken-Ichi Wada, et al. Hippo pathway regulation by cell morphology and stress fibers. 2011 Sep;138(18):3907-14.

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