

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Dynasore

Cat. No.:	HY-15304		
CAS No.:	304448-55-3	3	
Molecular Formula:	$C_{18}H_{14}N_{2}O_{4}$		
Molecular Weight:	322.31		
Target:	Dynamin; Autophagy; Virus Protease; HSV		
Pathway:	Cytoskeleton; Autophagy; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month

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SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (155.13 mM; Need ultrasonic)					
Preparing Stock Solutions		Solvent Mass Concentration	1 mg	5 mg	10 mg	
	1 mM	3.1026 mL	15.5130 mL	31.0260 mL		
		5 mM	0.6205 mL	3.1026 mL	6.2052 mL	
		10 mM	0.3103 mL	1.5513 mL	3.1026 mL	
	Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent of Solubility: ≥ 2.5 m 2. Add each solvent of	one by one: 10% DMSO >> 40% PEC g/mL (7.76 mM); Clear solution one by one: 10% DMSO >> 90% (20)	G300 >> 5% Tween-80 % SBE-β-CD in saline)) >> 45% saline		
	Solubility: ≥ 2.5 mg/mL (7.76 mM); Clear solution					

BIOLOGICAL ACTIV		
DIOLOGICAL ACTIV		
Description	Dynasore is a cell-permeable o	dynamin inhibitor with an IC $_{50}$ of 15 μ M. Dynasore blocks cell migration.
IC ₅₀ & Target	HSV-1	HSV-2
In Vitro	Dynasore interferes with the G small GTPases. Dynasore acts coated vesicle formation withi dynasore treatment, g-shaped inhibits HSV-1 and HSV-2 infec fetal neurons and astrocytes. I	TPase activity of dynamin1, dynamin2, and Drp1, the mitochondrial dynamin, but not of other as a potent inhibitor of endocytic pathways known to depend on dynamin by rapidly blocking in seconds of dynasore addition. Two types of coated pit intermediates accumulate during d, half formed pits and O-shaped, fully formed pits, captured while pinching off ^[1] . Dynasore ction of human epithelial and neuronal cells, including primary genital tract cells and human Dynasore reduces the number of viral capsids reaching the nuclear pore if added at the time of

Product Data Sheet

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	viral entry and that, when added as late as 8 h postentry, dynasore blocks the transport of newly synthesized viral proteins from the nucleus to the cytosol ^[2] . Dynasore prevents ischemia/reperfusion induced elevation of left ventricular end diastolic pressure. Dynasore also decreases cardiac troponin I efflux during reperfusion and reduces infarct size. In cultured adult mouse cardiomyocytes subjected to oxidative stress, dynasore increases cardiomyocyte survival and viability ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Dynasore ameliorates the motor dysfunction greatly at 3, 7, and 10 days after SCI in rats. Dynasore significantly enhances motor function which may be by inhibiting the activation of neuronal mitochondrial apoptotic pathway and astrocytic proliferation in rats after SCI ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[3]	Mouse ventricular myocytes are isolated from male adult C6/Black mouse. Cardiomyocytes subjects to 2 hours of drug treatment followed by oxidative stress (30 μM H ₂ O ₂ for 35 min). For ATP supplement experiments, the cells are treated with 3 mM ATP for 30 min before exposure to H ₂ O ₂ . Cardiomyocyte survival and viability are analyzed by trypan blue exclusion (TBE) assay ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal	Rats: In the dynasore groups, the rats are given dynasore immediately at a dose of 1, 10, or 30 mg/kg through intraperitoneal injection after SCI, while the rats in the sham and SCI groups receive DMSO (same volume as dynasore groups) through intraperitoneal injection ^[4] .
Administration ^[4]	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Nanotechnol. 2020 Dec;15(12):1043-1052.
- Adv Mater. 2022 Jul 28;e2204287.
- Adv Funct Mater. 2023 Jan 15.
- Sci Bull. 2020 Jul.
- Nat Commun. 2021 Jun 9;12(1):3481.

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REFERENCES

[1]. Liang Ma, et al. Discovery of the migrasome, an organelle mediating release of cytoplasmic contents during cell migration. Cell Res. 2015 Jan;25(1):24-38.

[2]. Macia E, et al. Dynasore, a cell-permeable inhibitor of dynamin. Dev Cell. 2006 Jun;10(6):839-50.

[3]. Mues MB, et al. Dynasore disrupts trafficking of herpes simplex virus proteins. J Virol. 2015 Jul;89(13):6673-84.

[4]. Gao D, et al. Dynasore protects mitochondria and improves cardiac lusitropy in Langendorff perfused mouse heart. PLoS One. 2013 Apr 15;8(4):e60967.

[5]. Li G, et al. Dynasore Improves Motor Function Recovery via Inhibition of Neuronal Apoptosis and Astrocytic Proliferation after Spinal Cord Injury in Rats. Mol Neurobiol. 2016 Nov 7.

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

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