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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PD 198306

Cat. No.: HY-107620

CAS No.: 212631-61-3

Molecular Formula: $C_{18}H_{16}F_3IN_2O_2$

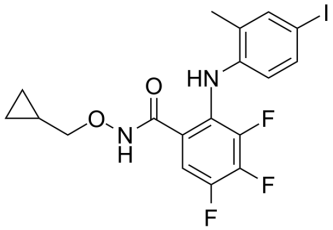
Molecular Weight: 476.23

Target: MEK

Pathway: MAPK/ERK Pathway

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (419.97 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0998 mL	10.4991 mL	20.9983 mL
	5 mM	0.4200 mL	2.0998 mL	4.1997 mL
	10 mM	0.2100 mL	1.0499 mL	2.0998 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: ≥ 5 mg/mL (10.50 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (10.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PD 198306 is a selective MAPK/ERK-kinase (MEK) inhibitor. PD 198306 results in an observable reduction in the Streptozocin induced increase in the level of active ERK1 and 2. Antihyperalgesic effects[1].

IC_{50} & Target

MEK

In Vitro

PD198306 significantly inhibits Tha-GFP replication by 25% at 10 μM, after 36 h[2].

PD198306 (5 μM) reduces Tha-Crimson replication significantly by 20% at 18 h but such a result could not be confirmed at 36 h[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cycle Analysis[2]

Cell Line:	Human induced pluripotent stem cells (iPSC)
Concentration:	10 μM
Incubation Time:	6 hours
Result:	Inhibited Tha-Crimson replication at 10 μM, reducing it by 30% at 18 h and 50% at 36 h.

In Vivo

Intrathecal administration of PD 198306 (1-30 μg per 10 μL) dose-dependently (1-30 μg) blocks static allodynia in both the streptozocin and the chronic constriction injury (CCI) models of neuropathic pain[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague Dawley rats (250-300 g) bearing neuropathic pain[1]
Dosage:	1-30 μg per 10 μL and 3 mg per 100 μL (PD 198306 is suspended in cremophor:ethanol:water, 1 : 1 : 8.)
Administration:	Single doses of intrathecal (i.t.) or intraplantar (ipl) of PD 198306 (1-30 μg per 10 μL and 3 mg per 100 μL respectively
Result:	Intrathecal administration dose-dependently (1-30 μg) blocked static allodynia the streptozocin model of neuropathic pain. The minimum effective doses (MED) of 3 μg significantly blocked static allodynia 30 min after treatment. Both 10 μg and the highest dose used (30 μg) totally blocked the maintenance of static allodynia, for up to 1 h.

REFERENCES

[1]. A Ciruela, et al. Identification of MEK1 as a novel target for the treatment of neuropathic pain. Br J Pharmacol. 2003 Mar;138(5):751-6.

[2]. Benoit Besson, et al. Kinome-Wide RNA Interference Screening Identifies Mitogen-Activated Protein Kinases and Phosphatidylinositol Metabolism as Key Factors for Rabies Virus Infection. mSphere. 2019 May 22;4(3):e00047-19.

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