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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

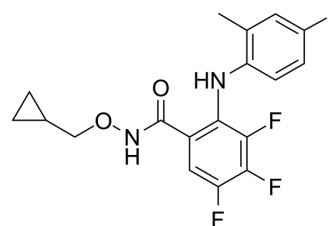
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PD 198306

Cat. No.:	HY-107620
CAS No.:	212631-61-3
Molecular Formula:	C ₁₈ H ₁₆ F ₃ IN ₂ O 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 Concentration	Mass	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 μ M
	Incubation Time:	6 hours
	Result:	Inhibited Tha-Crimson replication at 10 μ M, 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 μ g per 10 μ L and 3 mg per 100 μ L (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 μ g per 10 μ L and 3 mg per 100 μ L 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.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA