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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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

(±)-CPSI-1306

Cat. No.: HY-110095

CAS No.: 1309793-47-2

Molecular Formula: $C_{15}H_{16}F_2N_2O_3$

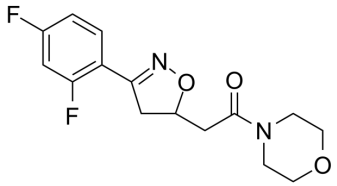
Molecular Weight: 310.3

Target: Macrophage migration inhibitory factor (MIF)

Pathway: Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6 mg/mL (19.34 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.2227 mL	16.1134 mL	32.2269 mL
5 mM	0.6445 mL	3.2227 mL	6.4454 mL
10 mM	0.3223 mL	1.6113 mL	3.2227 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: ≥ 0.6 mg/mL (1.93 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 0.6 mg/mL (1.93 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.6 mg/mL (1.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(±)-CPSI-1306 is an orally available antagonist of macrophage migration inhibitory factor (MIF).

IC_{50} & Target

MIF[1].

In Vivo

Mice treated with CPSI-1306 show a significant drop in their blood glucose levels, which is associated with a reduction in serum levels of inflammatory cytokines. As expected, control mice treated with vehicle develop NIDDM as characterized by high serum levels of glucose and inflammatory cytokine. Furthermore, they also show that orally bioavailable CPSI-1306 can

be effective in treating this disease[1]. CPSI-1306-induced keratinocyte apoptosis could be appreciated as early as 30 minutes after a single UVB exposure. At 6, 24, and 48 hours following UVB exposure, the CPSI-1306-treated mice show significantly increased expression of cleaved caspase-3 compared with the vehicle-treated mice. CPSI-1306 reduces acute UVB-induced keratinocyte DNA damage and UVB-induced acute inflammation[2].

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

PROTOCOL

Animal Administration [1]

Mice[1]

Six- to 8-wk-old female BALB/c mice and ICR mice are used in the study. Age- and sex-matched ICR mice are deprived of food for 20 h and then injected intraperitoneally with STZ (90 mg/kg). Beginning at 6 h after STZ injection, mice are administered CPSI-1306 (1 or 0.1 mg/kg) or PBS daily in a single oral dose for 30 d[1].

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

CUSTOMER VALIDATION

- FASEB J. 2023 Dec;37(12):e23303.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Sanchez-Zamora Y, et al. Macrophage migration inhibitory factor is a therapeutic target in treatment of non-insulin-dependent diabetes mellitus. FASEB J. 2010 Jul;24(7):2583-90.

[2]. Nagarajan P, et al. MIF antagonist (CPSI-1306) protects against UVB-induced squamous cell carcinoma. Mol Cancer Res. 2014 Sep;12(9):1292-302.

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