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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

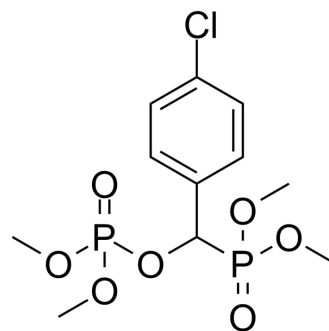
mail@szabo-scandic.com

www.szabo-scandic.com

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

Mifobate

Cat. No.:	HY-100277		
CAS No.:	76541-72-5		
Molecular Formula:	C ₁₁ H ₁₇ ClO ₇ P ₂		
Molecular Weight:	358.65		
Target:	PPAR		
Pathway:	Cell Cycle/DNA Damage; Vitamin D Related/Nuclear Receptor		
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 : 100 mg/mL (278.82 mM; Need ultrasonic)
 H₂O : 35.87 mg/mL (100.01 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.7882 mL	13.9412 mL	27.8823 mL
5 mM	0.5576 mL	2.7882 mL	5.5765 mL
10 mM	0.2788 mL	1.3941 mL	2.7882 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 50 mg/mL (139.41 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.97 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.97 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Mifobate (SR-202) is a potent and specific PPAR_γ antagonist. Mifobate (SR-202) selectively inhibits Thiazolidinedione (TZD)-induced PPAR_γ transcriptional activity (IC₅₀=140 μM). Mifobate (SR-202) does not affect basal or ligand-stimulated transcriptional activity of PPAR_α, PPAR_β, or the farnesoid X receptor (FXR). Mifobate (SR-202) shows antiobesity and antidiabetic effects^[1].

IC₅₀ & Target

PPAR_γ

	140 μ M (IC ₅₀)								
In Vitro	<p>Mifobate (100-400 μM; pretreated with 24 hours) significantly inhibits BRL 49653- and hormone-induced adipocyte differentiation of 3T3-L1 cells in a dose-dependent manner after 6 days^[1].</p> <p>Mifobate is able to both interact specifically with PPARγ and inhibit its agonist-dependent interaction with the coactivator steroid receptor coactivator-1 (SRC-1). Mifobate (SR-202) inhibits TZD-stimulated recruitment of the coactivator steroid receptor coactivator-1. Mifobate blocks adipocyte differentiation induced either by thiazolidinediones or by the combination of dexamethasone, insulin, and 3-isobutyl-1-methylxanthine (IBMX)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
In Vivo	<p>Mifobate (400 mg/kg; Feed for 20 days) increases insulin sensitivity in ob/ob mice^[1]</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Eight-week-old male ob/ob mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>400 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Feed (food admixture maintained for 20 days)</td> </tr> <tr> <td>Result:</td> <td>Prevented the time-dependent increase in glucose concentrations.</td> </tr> </table>	Animal Model:	Eight-week-old male ob/ob mice ^[1]	Dosage:	400 mg/kg	Administration:	Feed (food admixture maintained for 20 days)	Result:	Prevented the time-dependent increase in glucose concentrations.
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Dosage:	400 mg/kg								
Administration:	Feed (food admixture maintained for 20 days)								
Result:	Prevented the time-dependent increase in glucose concentrations.								

CUSTOMER VALIDATION

- Drug Dev Res. 2020 Nov;81(7):859-866.

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REFERENCES

[1]. Rieusset J, et al. A new selective peroxisome proliferator-activated receptor gamma antagonist with antiobesity and antidiabetic activity. Mol Endocrinol. 2002 Nov;16(11):2628-44.

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