



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



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

### 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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

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

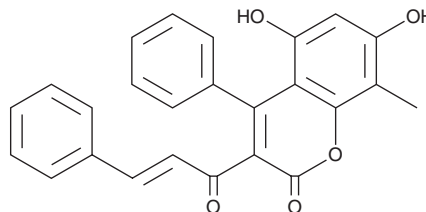
# PRODUCT INFORMATION



**MD001**

Item No. 27443

**CAS Registry No.:** 2254605-76-8  
**Formal Name:** 5,7-dihydroxy-8-methyl-3-[(2E)-1-oxo-3-phenyl-2-propen-1-yl]-4-phenyl-2H-1-benzopyran-2-one  
**MF:** C<sub>25</sub>H<sub>18</sub>O<sub>5</sub>  
**FW:** 398.4  
**Purity:** ≥90%  
**UV/Vis.:** λ<sub>max</sub>: 270, 296 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

MD001 is supplied as a crystalline solid. A stock solution may be made by dissolving the MD001 in the solvent of choice, which should be purged with an inert gas. MD001 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MD001 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

## Description

MD001 is a dual agonist of peroxisome proliferator-activated receptor  $\alpha$  (PPAR $\alpha$ ) and PPAR $\gamma$ .<sup>1</sup> It binds to PPAR $\alpha$  and PPAR $\gamma$  (K<sub>d</sub>s = 9.55 and 0.14  $\mu$ M, respectively) but does not bind to PPAR $\beta$ / $\delta$  at concentrations up to 500  $\mu$ M. It increases transcriptional activity of PPAR $\alpha$  and PPAR $\gamma$  in a cell-based luciferase reporter assay when used at a concentration of 10  $\mu$ M. MD001 (10  $\mu$ M) increases expression of PPAR $\alpha$ , PPAR $\gamma$ , and retinoid X receptor (RXR), as well as PPAR $\alpha$  and PPAR $\gamma$  target genes, in HepG2 cells. It increases glucose consumption as well as expression of GLUT2 and GLUT4 in HepG2 and 3T3-L1 cells, respectively, in a concentration-dependent manner. MD001 (20 mg/kg) decreases levels of glucose, insulin, free fatty acids, triglycerides, LDL, alanine aminotransferase (ALT), and aspartate aminotransferase (AST) in blood and reduces the size and number of hepatic lipid droplets in diabetic *db/db* mice.

## Reference

1. Kim, S.-H., Hong, S.H., Park, Y.-J., *et al.* MD001, a novel peroxisome proliferator-activated receptor  $\alpha$ / $\gamma$  agonist, improves glucose and lipid metabolism. *Sci. Rep.* **9**(1), 1656 (2019).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2019

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM