



# 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)

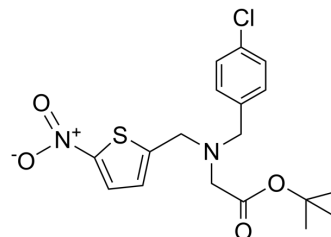
[www.szabo-scandic.com](http://www.szabo-scandic.com)

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



## GSK4112

|                    |                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-14414                                                                                         |
| CAS No.:           | 1216744-19-2                                                                                     |
| Molecular Formula: | C <sub>18</sub> H <sub>21</sub> ClN <sub>2</sub> O <sub>4</sub> S                                |
| Molecular Weight:  | 396.89                                                                                           |
| Target:            | Apoptosis; REV-ERB                                                                               |
| Pathway:           | Apoptosis; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor                         |
| Storage:           | Powder    -20°C    3 years<br>4°C    2 years<br>In solvent   -80°C    2 years<br>-20°C    1 year |



### SOLVENT & SOLUBILITY

|                                                                               |                                                                                                                                                  |                                                                       |           |            |            |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------|------------|------------|
| In Vitro                                                                      | DMSO : 25 mg/mL (62.99 mM; Need ultrasonic)                                                                                                      |                                                                       |           |            |            |
|                                                                               | Preparing Stock Solutions                                                                                                                        | <div><div>Solvent</div><div>Concentration</div></div> <div>Mass</div> | 1 mg      | 5 mg       | 10 mg      |
|                                                                               |                                                                                                                                                  | 1 mM                                                                  | 2.5196 mL | 12.5979 mL | 25.1959 mL |
|                                                                               |                                                                                                                                                  | 5 mM                                                                  | 0.5039 mL | 2.5196 mL  | 5.0392 mL  |
|                                                                               |                                                                                                                                                  | 10 mM                                                                 | 0.2520 mL | 1.2598 mL  | 2.5196 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<br>Solubility: ≥ 2.5 mg/mL (6.30 mM); Clear solution         |                                                                       |           |            |            |
|                                                                               | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: 2.5 mg/mL (6.30 mM); Suspended solution; Need ultrasonic |                                                                       |           |            |            |
|                                                                               | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.5 mg/mL (6.30 mM); Clear solution                                    |                                                                       |           |            |            |
|                                                                               |                                                                                                                                                  |                                                                       |           |            |            |

### BIOLOGICAL ACTIVITY

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | GSK4112 (SR6452) is a Rev-erba agonist with an EC <sub>50</sub> value of 0.4 μM. GSK4112 can be used as a chemical tool to probe the function of Rev-erba in transcriptional repression, regulation of circadian biology, and metabolic pathways <sup>[1]</sup> .                                                                                                                                                                            |
| In Vitro    | GSK4112 (0-100 μM; 1 h) interacts with Rev-erba with an EC <sub>50</sub> value of 0.4 μM <sup>[1]</sup> .<br>?GSK4112 (10 μM; 6 h) represses expression of bmal1 and the target genes associated with the pathway of gluconeogenesis, recruits HDAC3 and modulates the effect of Rev-erba on oscillation of hepatic gene expression <sup>[1]</sup> .<br>?GSK4112 (10 μM; 16 h) reduces glucose output in murine hepatocytes <sup>[1]</sup> . |

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

RT-PCR<sup>[1]</sup>

|                  |                                                                    |
|------------------|--------------------------------------------------------------------|
| Cell Line:       | HepG2 cell line                                                    |
| Concentration:   | 10 $\mu$ M                                                         |
| Incubation Time: | 6 hours                                                            |
| Result:          | Repressed mRNA levels of bmal1, G6 Pase, PEPCK and PGC1 $\alpha$ . |

#### In Vivo

GSK4112 (25 mg/kg; i.p. 0.5 h before Jo2 exposure) attenuates Fas-induced hepatic damage<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

|                 |                                                                                                                                                                                      |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Animal Model:   | Male C57BL/6 mice with Fas-induced acute hepatic damage <sup>[2]</sup>                                                                                                               |
| Dosage:         | 25 mg/kg                                                                                                                                                                             |
| Administration: | Intraperitoneal injection; 25 mg/kg; 0.5 h before Jo2 exposure                                                                                                                       |
| Result:         | Obviously ameliorated the degree of liver damage, suppressed Jo2-induced ALT and AST increasing, improved the survival rate of mice and suppressed Fas-induced hepatocyte apoptosis. |

## CUSTOMER VALIDATION

- Pharmacol Res. 2023 Feb 20;189:106704.
- Free Radical Bio Med. 2019 Dec;145:312-320.
- Fish Physiol Biochem. 2020 Jun;46(3):891-907.
- Oncol Lett. 2018 Aug;16(2):1499-1506.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Shao R, et al. REV-ERB $\alpha$  Agonist GSK4112 attenuates Fas-induced Acute Hepatic Damage in Mice. Int J Med Sci. 2021 Oct 25;18(16):3831-3838.

[2]. Grant D, et al. GSK4112, a small molecule chemical probe for the cell biology of the nuclear heme receptor Rev-erb $\alpha$ . ACS Chem Biol. 2010 Oct 15;5(10):925-932.

**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](mailto:tech@MedChemExpress.com)

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