

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



#### SR9009

Item No. 11929

CAS Registry No.: Formal Name:	1379686-30-2 3-[[[(4-chlorophenyl)methyl] [(5-nitro-2-thienyl)methyl]amino] methyl]-1-pyrrolidinecarboxylic acid ethyl ester
Synonym:	REV-ERB Agonist II
MF:	$C_{20}H_{24}CIN_{3}O_{4}S$
FW:	437.9
Purity:	≥98%
UV/Vis.:	λ <sub>max</sub> : 220, 325 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly $% \left( {\left[ {{{\rm{C}}_{\rm{T}}} \right]_{\rm{T}}} \right)_{\rm{T}} \right)$

#### Laboratory Procedures

SR9009 is supplied as a crystalline solid. A stock solution may be made by dissolving the SR9009 in the solvent of choice. SR9009 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SR9009 in ethanol is approximately 14 mg/ml and approximately 30 mg/ml in DMSO and DMF.

SR9009 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

#### Description

REV-ERBa and REV-ERBB nuclear receptors are transcriptional repressors that coordinate circadian rhythm and metabolic pathways in a heme-dependent manner. SR9009 is a REV-ERB agonist that increases the constitutive repression of genes regulated by REV-ERB $\alpha$  and REV-ERB $\beta$  with IC<sub>50</sub> values of 670 and 800 nM, respectively.<sup>1</sup> Through activation of REV-ERB, SR9009 has been shown to decrease circadian locomotor activity during the dark phase and to alter the expression pattern of core clock genes in the hypothalami of mice.<sup>1</sup> The circadian pattern of expression of an array of metabolic genes in the liver, skeletal muscle and adipose tissue was also shown to be altered in mice exposed to SR9009, resulting in increased energy expenditure.<sup>1</sup> Diet-induced obese mice treated with 100 mg/kg SR9009 (i.p. two times a day for 30 days) have been reported to display decreased fat mass and markedly improved dyslipidemia and hyperglycemia.<sup>1</sup>

#### Reference

1. Solt, L.A., Wang, Y., Banerjee, S., et al. Regulation of circadian behaviour and metabolism by synthetic REV-ERB agonists. Nature 485, 62-68 (2012).

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

#### SAFFTY DATA

al 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

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