

**Product Name** : SR9009

**Synonyms** : SR9009; SR 9009; SR-9009; Stenabolic

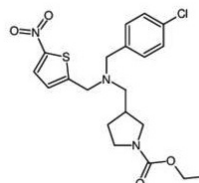
**Cat No.** : M17268

**CAS Number** : 1379686-30-2

**Molecular Formula** : C<sub>20</sub>H<sub>24</sub>ClN<sub>3</sub>O<sub>4</sub>S

**Formula Weight** : 437.94

**Chemical Name** : ethyl 3-[[[(4-chlorophenyl)methyl-[(5-nitrothiophen-2-yl)methyl]amino)methyl]pyrrolidine-1-carboxylate



**Description** : SR9009, a REV-ERB agonist, increases the constitutive repression of genes regulated by REV-ERB $\alpha$ /ERB $\beta$  (IC<sub>50</sub>: 670/800 nM). Through activation of REV-ERB, SR9009 can decrease circadian locomotor activity during the dark phase and alter the expression pattern of core clock genes in the hypothalami of mice. The circadian pattern of expression of an array of metabolic genes in the liver, skeletal muscle, and adipose tissue was also altered in mice exposed to SR9009, resulting in increased energy expenditure. In Diet-induced obese mice, SR9009 (100 mg/kg, i.p., b.i.d., for 30 days) could decrease fat mass and markedly improve dyslipidemia and hyperglycemia.

**Pathway** : Metabolic Enzyme/Protease

**Target** : Retinoid Receptor

**Receptor** : Rev-ErbB $\alpha$ ; Rev-ErbB $\beta$

**Solubility** : DMSO :  $\geq 30$  mg/mL 68.50 mM; H<sub>2</sub>O :  $< 0.1$  mg/mL

**SMILES** : CCOC(=O)N1CCC(C1)CN(Cc1ccc(cc1)Cl)Cc1ccc(s1)[N+](=O)[O-]

**Storage** : (-20°C)

**Stability** :  $\geq 2$  years

**Reference** :

1. Solt LA, et al. Nature. 2012 Mar 29;485(7396):62-8.