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## SR9009

产品编号: D50898

CAS: 1379686-30-2

分子式: C<sub>20</sub>H<sub>25</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>4</sub>S

纯度: ≥98%

InChi: InChI=1S/C20H24ClN3O4S.ClH/c1-2-28-20(25)23-10-9-16(13-23)12-22(11-15-3-5-17(21)6-4-15)  
14-18-7-8-19(29-18)24(26)27;/h3-8,16H,2,9-14H2,1H3;1H

InChi Key: IXPPNWWYUDXZKRX-UHFFFAOYSA-N

Smiles: Cl.CCOC(=O)N1CC(CN(CC2C=CC(Cl)=CC=2)CC2=CC=C(S2)[N+](O)=O)CC1

外观: 固体粉末

作用通路: Autophagy

溶解性: DMSO up to 100 mM

保存条件: Store in dry, dark place for one year.

产品介绍: SR9009 is a potent and specific synthetic REV-ERB agonist that binds to REV-ERB- $\alpha$  with an EC<sub>50</sub> ~670 nM and REV-ERB- $\beta$  with EC<sub>50</sub> ~800 nM. It also has good in vivo plasma/brain exposure. The nuclear receptors REV-ERB- $\alpha$  and REV-ERB- $\beta$  play an integral role in regulating the expression of core clock proteins, driving rhythms in activity and metabolism. Administration of SR9009 alters circadian behavior and the circadian pattern of core clock gene expression in the hypothalamus of mice. The circadian expression pattern of an array of metabolic genes in the liver, skeletal muscle and adipose tissue was also altered, resulting in increased energy expenditure. Treatment of diet-induced obese mice with SR9009 decreased obesity by reducing fat mass and markedly improved dyslipidaemia and hyperglycaemia. It improves muscle mitochondrial function too. These results indicate that synthetic REV-ERB ligands that pharmacologically target the circadian rhythm may be beneficial in the treatment of sleep disorders as well as metabolic diseases.