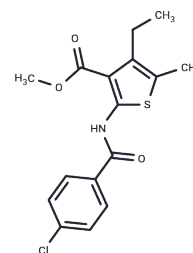


COR659

Chemical Properties

CAS No. : 544450-68-2
 Formula: C₁₆H₁₆ClNO₃S
 Molecular Weight: 337.82
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	COR659 is a 2-acylaminothiophene derivative able to suppress alcohol and chocolate self-administration in rats, likely via positive allosteric modulation of the GABAB receptor and antagonism/inverse agonism at the cannabinoid CB1 receptor.
Targets(IC50)	Cannabinoid Receptor, GABA Receptor
In vitro	COR659 exerts its effects through a composite mechanism, including positive allosteric modulation of the GABAB receptor and action at the cannabinoid CB1 receptor [3].
In vivo	COR659 (0, 2.5, 5, and 10 mg/kg) treatment is completely ineffective on lever-responding (FR10) for regular food pellets in food-deprived Wistar rats[1]. However, COR659 suppresses lever-responding for a sucrose solution in sP rats and a chocolate solution in Wistar rats[2]. Animal Model: Male sP and Wistar rats[1].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (98.66 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.92 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9602 mL	14.8008 mL	29.6016 mL
5 mM	0.592 mL	2.9602 mL	5.9203 mL
10 mM	0.296 mL	1.4801 mL	2.9602 mL
50 mM	0.0592 mL	0.296 mL	0.592 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Francesca Ferlenghi, et al. The GABA B receptor positive allosteric modulator COR659: In vitro metabolism, in vivo pharmacokinetics in rats, synthesis and pharmacological characterization of metabolically protected derivatives. *Eur J Pharm Sci.* 2020 Dec 1;155:105544.

Paola Maccioni, et al. Anti-addictive properties of COR659 - Additional pharmacological evidence and comparison with a series of novel analogues. *Alcohol.* 2019 Mar;75:55-66.

Paola Maccioni, et al. Suppressing effect of COR659 on alcohol, sucrose, and chocolate self-administration in rats: involvement of the GABA B and cannabinoid CB 1 receptors. *Psychopharmacology (Berl).* 2017 Sep;234(17):2525-2543.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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