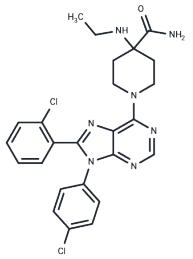
Data Sheet (Cat.No.T3530)

TargetMol
YOUR TARGET MOLECULES

Otenabant

Chemical Properties



CAS No. : 686344-29-6

Formula: C25H25Cl2N7O

Molecular Weight: 510.42

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Otenabant (CP-945598) has been investigated for the treatment of Obesity.
Targets(IC50)	Cannabinoid Receptor
In vitro	Otenabant HCl has a low Ki affinity for human CB2 receptors of 7.6 μM[1]. Otenabant HCl inhibits CB1 receptor with moderate unbound microsomal clearance, low hERG affinity, and adequate CNS penetration[2].
In vivo	Otenabant effectively enhances energy expenditure and promotes fat oxidation in rats, alongside reducing the respiratory quotient, indicative of a shift towards greater fat utilization. When administered orally at a dosage of 10 mg/kg, Otenabant results in a notable 9% weight reduction over 10 days in mice with diet-induced obesity, after adjusting for vehicle effects. Additionally, Hydrochloride (HCl) form of Otenabant counteracts behaviors induced by cannabinoid agonists–including altered locomotor activity, hypothermia, analgesia, and catalepsy–triggered by the synthetic CB1 receptor agonist CP-55940. Furthermore, in rodent models, Otenabant HCl demonstrates a dose-dependent appetite-suppressing effect and increases both energy expenditure and fat oxidation.

Solubility Information

Solubility	DMSO: 10 mg/mL (19.59 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9592 mL	9.7959 mL	19.5917 mL
5 mM	0.3918 mL	1.9592 mL	3.9183 mL
10 mM	0.1959 mL	0.9796 mL	1.9592 mL
50 mM	0.0392 mL	0.1959 mL	0.3918 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.

Reference

Li P, Lin Q, Sun S, et al. Inhibition of cannabinoid receptor type 1 sensitizes triple-negative breast cancer cells to ferroptosis via regulating fatty acid metabolism. Cell Death & Disease. 2022, 13(9): 1-15.
John R. Hadcock, et