

## Product Datasheet

### TM38837 (orb1220068)

<b>Catalog Number</b>	orb1220068
<b>Category</b>	Small Molecules
<b>Description</b>	<p>TM38837 is an antagonist of cannabinoid receptor type 1 (CB1), with potential for the treatment of obesity and type 2 diabetes. TM38837, a novel, largely peripherally restricted CB1 antagonist, in terms of fear-promoting consequences of systemic vs. intracerebral injections. Different groups of male C57BL/6 N mice underwent auditory fear conditioning, followed by re-exposure to the tone. Mice were treated per os (p.o.) with TM38837 (10, 30, or 100 mg/kg), rimonabant (10 mg/kg; a brain penetrating CB1 antagonist/inverse agonist which served as a positive control), or vehicle, 2 h prior the tone presentation. Only the high dose of TM38837 (100 mg/kg) induced a significant increase in freezing behavior, similar to that induced by rimonabant (10 mg/kg) (<math>p &lt; 0.001</math>). If injected into the brain both TM38837 (10 or 30 <math>\mu\text{g}/\text{mouse}</math>) and rimonabant (1 or 10 <math>\mu\text{g}/\text{mouse}</math>) caused a sustained fear response to the tone, which was more pronounced after rimonabant treatment. Taken together, TM38837 was at least one order of magnitude less effective in promoting fear responses than rimonabant. Given the equipotency of the two CB1 antagonists with regard to weight loss and metabolic syndrome-like symptoms in rodent obesity models, our results point to a critical dose range in which TM3887 might be beneficial for indications such as obesity and metabolic disorders with limited risk of fear-promoting effects.</p>
<b>Target</b>	Cannabinoid Receptor
<b>Purity</b>	>98% (HPLC)
<b>MW</b>	617.51
<b>Target Areas</b>	CB1
<b>Solubility (25°C)</b>	DMSO:40 mg/mL (64.77 mM; Need ultrasonic)
<b>CAS Number</b>	1253641-65-4

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<b>Formula</b>	$C_{30}H_{25}Cl_2F_3N_4OS$
<b>SMILES</b>	<chem>CCC1=C(N(N=C1C(=O)NN1CCCCC1)C1=C(Cl)C=C(Cl)C=C1)C1=CC=C(S1)C#CC1=CC=C(C=C1)C(F)(F)F</chem>
<b>Storage</b>	Storage temperature: -20°C. Stability: ≥ 2 years
<b>Note</b>	For research use only
<b>Expiration Date</b>	12 months from date of receipt.

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