

AM251

Catalog No: tcsc3920



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

183232-66-8

Formula:

$C_{22}H_{21}Cl_2IN_4O$

Pathway:

GPCR/G Protein

Target:

Cannabinoid Receptor

Purity / Grade:

>98%

Solubility:

DMSO : 25 mg/mL (45.03 mM; Need ultrasonic); H2O :

Observed Molecular Weight:

555.24

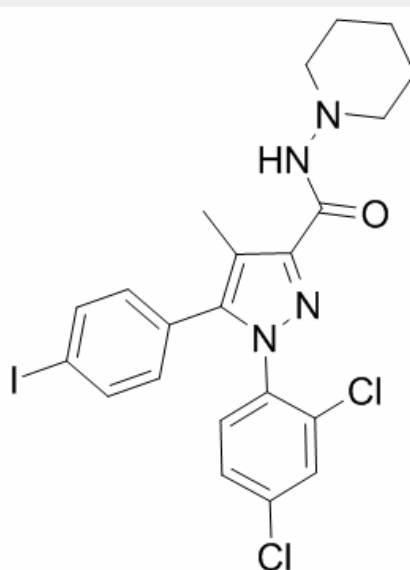
Product Description

AM251 is a selective **cannabinoid (CB)**₁ receptor antagonist with **IC₅₀** of 8 nM, also acts as an agonist at micromolar concentration.

IC50 & Target: IC50: 8 nM (CB1 receptor)^[1]

In Vitro: AM251 is a CB1 receptor antagonist/inverse agonist. AM251 produces an agonist response in HEK293 cells, similar to that found in the yeast expression system^[2]. AM-251 reduces cholesteryl ester synthesis in unstimulated and acetylated LDL-stimulated Raw 264.7 macrophages, CB2^{+/+} and CB2^{-/-} peritoneal macrophages^[3].

In Vivo: The CB1 antagonist AM251 (3 mg/kg, i.p.) decreases capsaicin-evoked nocifensive behavior ($F_{1,18}=28.45$, $p_{1,18}=14.83$, $p_{1,18}=4.704$, $p=0.0587$). Planned comparisons reveal that AM251 reduces nocifensive behaviors in fatty-acid amide hydrolase (FAAH) KO mice ($p_{0.2}$) relative to their respective vehicle controls. AM251 (3 mg/kg, i.p.) reduces the duration of heat hypersensitivity in FAAH KO ($F_{1,9}=21.43$, $p_{0.3}$). AM251 suppresses capsaicin-evoked heat hypersensitivity in a time-dependent manner in FAAH KO ($F_{5,9}=4.349$, $p_{0.3}$). Post-hoc analysis reveals that FAAH KO mice receiving vehicle (i.p.) display heightened thermal hypersensitivity at 30 ($p_{[4]}$). One-way ANOVA shows that AM251 (AM-251) injected into the rats significantly decreases both of the percentage of entries in the open arms and time spent in the open arms, compare to controls. The Tukey-Kramer test analysis reveals a significant reduction for the doses of 1 mg/kg ($P_{[5]}$).



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!