

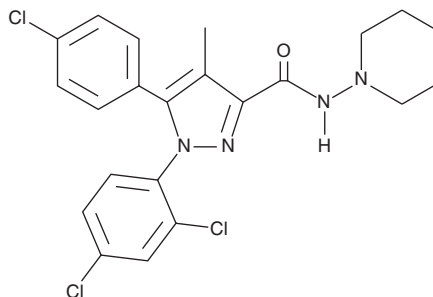
Product Information



Rimonabant

Item No. 9000484

CAS Registry No.: 168273-06-1
Formal Name: 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-1H-pyrazole-3-carboxamide
Synonym: SR141716
MF: C₂₂H₂₁Cl₃N₄O
FW: 463.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that rimonabant be stored as supplied at -20°C. It should be stable for at least two years.

Rimonabant is supplied as a crystalline solid. A stock solution may be made by dissolving the rimonabant in an organic solvent purged with an inert gas. Rimonabant is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of rimonabant in these solvents is approximately 20 mg/ml.

Rimonabant is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rimonabant should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Rimonabant has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Rimonabant, also known as SR141716, was the first selective central cannabinoid (CB₁) receptor inverse agonist (K_i = 1.8 nM) to be developed as an appetite suppressant, anti-obesity drug.¹ It is widely used as a tool to investigate CB receptor properties and the mechanisms by which CB agonists exert their pharmacological effects. In rodent models and clinical trials, rimonabant effectively induces lipolysis, reduces hepatomegaly, decreases body weight, and improves dyslipidemia by reducing triglyceride, free fatty acid, and total cholesterol levels and by increasing HDL/LDL ratios.² However, rimonabant reportedly produces adverse psychiatric and neurological effects (*e.g.*, depression or anxiety) and therefore is not approved by the FDA for use as a weight control medication.² Rimonabant elicits anti-proliferative and immunomodulatory effects (*e.g.*, cell cycle arrest, increased expression of IκB and phosphorylated Akt, and decreased expression of NF-κB, phosphorylated ERK1/2, COX-2, and iNOS) *in vitro*.³

References

1. Rinaldi-Carmona, M., Barth, F., Héaulme, M., *et al.* SR141716A, a potent and selective antagonist of the brain cannabinoid receptor. *FEBS Lett.* **350**, 240-244 (1994).
2. Leite, C.E., Mocelin, C.A., Petersen, G.O., *et al.* Rimonabant: An antagonist drug of the endocannabinoid system for the treatment of obesity. *Pharmacological Reports* **61**, 217-224 (2009).
3. Malfitano, A.M., Laezza, C., Pisanti, S., *et al.* Rimonabant (SR141716) exerts anti-proliferative and immunomodulatory effects in human peripheral blood mononuclear cells. *Brit. J Pharmacol.* **153**, 1003-1010 (2009).

Related Products

URB447 - Cat. No. 13261 • LH 21 - Item No. 13453 • NESS 0327 - Cat. No. 10004184

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 03/31/2011

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com