

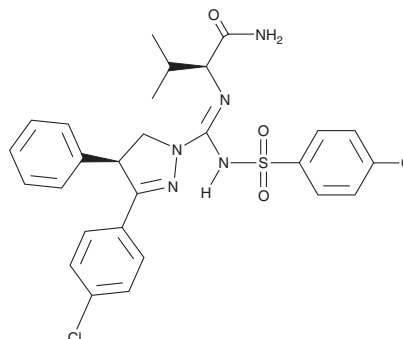
PRODUCT INFORMATION



JD5037

Item No. 12053

CAS Registry No.: 1392116-14-1
Formal Name: 2S-[[[(4S)-3-(4-chlorophenyl)-4,5-dihydro-4-phenyl-1H-pyrazol-1-yl] [[(4-chlorophenyl)sulfonyl]amino] methylene]amino]-3-methyl-butanamide
MF: C₂₇H₂₇Cl₂N₅O₃S
FW: 572.5
Purity: ≥95
UV/Vis.: λ_{max}: 227, 315 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

JD5037 is supplied as a crystalline solid. A stock solution may be made by dissolving the JD5037 in the solvent of choice, which should be purged with an inert gas. JD5037 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of JD5037 in these solvents is approximately 25, 30, and 20 mg/ml, respectively.

JD5037 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JD5037 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JD5037 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JD5037 is an inverse agonist of peripheral cannabinoid 1 (CB₁) receptors (K_i = 0.35 nM).¹ It displays >700-fold selectivity for CB₁ over CB₂, >1,000-fold selectivity over a panel of 70 receptors, transporters, and ion channels, and low blood-brain barrier penetrance.^{1,2} JD5037 is orally bioavailable and reduces food intake, body weight, and hormonal/metabolic abnormalities in diet-induced obese mice.^{1,3} JD5037 reverses hyperphagia, reduces body weight, and improves metabolic parameters in *Magel2*-null mice, a model of Prader-Willi syndrome.⁴

References

1. Tam, J., Cinar, R., Liu, J., *et al.* Peripheral cannabinoid-1 receptor inverse agonism reduces obesity by reversing leptin resistance. *Cell Metab.* **16**(2), 167-179 (2012).
2. Chorvat, R.J., Berbaum, J., Seriaci, K., *et al.* JD-5006 and JD-5037: Peripherally restricted (PR) cannabinoid-1 receptor blockers related to SLV-319 (Ibipinabant) as metabolic disorder therapeutics devoid of CNS liabilities. *Bioorg. Med. Chem. Lett.* **22**(19), 6173-6180 (2012).
3. Cinar, R., Godlewski, G., Liu, J., *et al.* Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing *de novo* synthesis of long-chain ceramides. *Hepatology* **59**(1), 143-153 (2014).
4. Knani, I., Earley, B.J., Udi, S., *et al.* Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. *Mol. Metab.* **5**(12), 1187-1199 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/21/2025

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM