

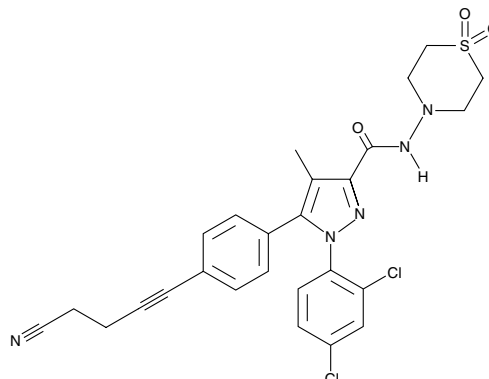
Product Information



AM6545

Item No. 16316

CAS Registry No.: 1245626-05-4
Formal Name: 5-[4-(4-cyano-1-butyn-1-yl)phenyl]-1-(2,4-dichlorophenyl)-N-(1,1-dioxido-4-thiomorpholinyl)-4-methyl-1H-pyrazole-3-carboxamide
MF: C₂₆H₂₃Cl₂N₅O₃S
FW: 556.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 268 nm



Laboratory Procedures

For long term storage, we suggest that AM6545 be stored as supplied at -20°C. It should be stable for at least two years. AM6545 is supplied as a crystalline solid. A stock solution may be made by dissolving the AM6545 in the solvent of choice. AM6545 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of AM6545 in these solvents is approximately 10 mg/ml.

AM6545 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AM6545 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AM6545 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Peripherally-restricted cannabinoid receptor 1 (CB₁) selective antagonists have the potential to inhibit food intake while also escaping centrally-mediated neuropsychiatric side effects. AM6545 is a novel CB₁ selective neutral antagonist with low CNS penetration, exhibiting K_i values of 1.7 and 523 nM for CB₁ and CB₂ receptors, respectively.¹ It reduces food intake and food-reinforced behavior, such as time spent feeding, in a dose-dependent manner, resulting in decreased body weight.^{1,2} AM6545 produces improvements in glucose homeostasis, fatty liver, and plasma lipid profiles in mice with diet-induced obesity.³ It does not affect behavior responses that are associated with activation of CB₁ receptors in the brain.³

References

1. Cluny, N.L., Vemuri, V.K., Chambers, A.P., *et al.* A novel peripherally restricted cannabinoid receptor antagonist, AM6545, reduces food intake and body weight, but does not cause malaise, in rodents. *Br. J. Pharmacol.* **161(3)**, 629-642 (2010).
2. Randall, P.A., Vemuri, V.K., Segovia, K.N., *et al.* The novel cannabinoid CB₁ antagonist AM6545 suppresses food intake and food-reinforced behavior. *Pharmacol. Biochem. Behav.* **97(1)**, 179-184 (2010).
3. Tam, J., Vemuri, V.K., Liu, J., *et al.* Peripheral CB₁ cannabinoid receptor blockade improves cardiometabolic risk in mouse models of obesity. *J. Clin. Invest.* **120(8)**, 2953-2966 (2010).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16316

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

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 Safety Data Sheet, which has been sent via email to your institution.

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