

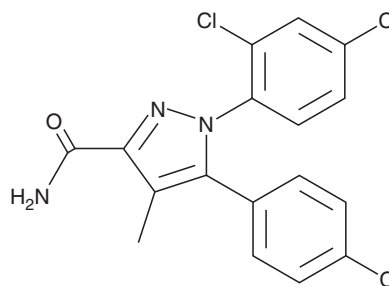
# PRODUCT INFORMATION



## AM4113

Item No. 20581

**CAS Registry No.:** 614726-85-1  
**Formal Name:** 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-1H-pyrazole-3-carboxamide  
**MF:** C<sub>17</sub>H<sub>12</sub>Cl<sub>3</sub>N<sub>3</sub>O  
**FW:** 380.7  
**Purity:** ≥98%  
**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

AM4113 is supplied as a crystalline solid. A stock solution may be made by dissolving the AM4113 in the solvent of choice. AM4113 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of AM4113 in these solvents is approximately 0.5, 3, and 10 mg/ml, respectively.

AM4113 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AM4113 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AM4113 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

AM4113 is a cannabinoid receptor 1 (CB<sub>1</sub>)-selective neutral antagonist that binds to CB<sub>1</sub> and CB<sub>2</sub> with K<sub>i</sub> values of 0.89 and 92 nM, respectively.<sup>1</sup> In rats, it has been shown to reduce food intake and food-reinforced behavior, such as time spent feeding, thereby reducing weight gain without inducing nausea.<sup>2</sup> This compound has also been used to study the abuse-related effects of nicotine, as well as the effects of nicotine on anxiety and depressive-like behavior in rats.<sup>3</sup>

### References

1. Sink, K.S., McLaughlin, P.J., Wood, J.A.T., *et al.* The novel cannabinoid CB<sub>1</sub> receptor neutral antagonist AM4113 suppresses food intake and food-reinforced behavior but does not induce signs of nausea in rats. *Neuropsychopharmacology* **33**(4), 946-955 (2008).
2. Salamone, J.D., McLaughlin, P.J., Sink, K., *et al.* Cannabinoid CB<sub>1</sub> receptor inverse agonists and neutral antagonists: Effects on food intake, food-reinforced behavior and food aversions. *Physiol. Behav.* **91**(4), 383-388 (2007).
3. Gueye, A.B., Pryslawsky, Y., Trigo, J.M., *et al.* The CB<sub>1</sub> neutral antagonist AM4113 retains the therapeutic efficacy of the inverse agonist rimonabant for nicotine dependence and weight loss with better psychiatric tolerability. *Int. J. Neuropsychopharmacol.* 1-11 (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, 02/14/2024

#### 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