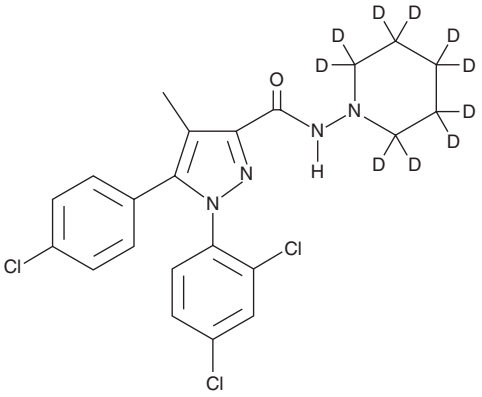
PRODUCT INFORMATION

Rimonabant-d_{10}

Item No. 9001821



CAS Registry No.:	929221-88-5
Formal Name:	5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(1-piperidinyl-2,2',3,3',4,4',5,5',6,6'-d_{10})-1H-pyrazole-3-carboxamide
MF:	$C_{22}H_{11}Cl_3D_{10}N_4O$
FW:	473.8
Chemical Purity:	≥98% (Rimonabant)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_{10}); ≤1% d_0
Supplied as:	A 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

Rimonabant-d_{10} is intended for use as an internal standard for the quantification of rimonabant (Item No. 9000484) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Rimonabant-d_{10} is supplied as a solid. A stock solution may be made by dissolving the rimonabant-d_{10} in the solvent of choice, which should be purged with an inert gas. Rimonabant-d_{10} is soluble in chloroform.

Description

Rimonabant is a cannabinoid 1 (CB_1) receptor antagonist (K_i = 5.6 nM).[1] It is selective for CB_1 over CB_2 receptors (K_i = >1,000 nM), as well as a panel of 37 other receptors and channels (IC_{50}s = >1,000 nM). Rimonabant (10 µM) inhibits phytohemagglutinin-induced proliferation of isolated human peripheral blood mononuclear cells (PBMCs).[2] Intraperitoneal administration of rimonabant prevents decreases in body temperature and increases in tail-flick latency induced by the CB_1 and CB_2 receptor agonist (+)-WIN 55,212-2 (Item No. 10009023) in mice (ED_{50}s = 0.28 and 1.62 mg/kg, respectively) and oral administration reduces body weight in a mouse model of diet-induced obesity when administered at a dose of 10 mg/kg in the drinking water.[1,3] Rimonabant (10 mg/kg) decreases the percentage of time spent in the open arms of the elevated plus maze in mice, indicating anxiety-like activity.[4] Formulations containing rimonabant have previously been used in the treatment of obesity.

References

1. Rinaldi-Carmona, M., Barth, F., Héaulme, M., *et al. FEBS Lett.* **350(2-3)**, 240-244 (1994).
2. Malfitano, A.M., Laezza, C., Pisanti, S., *et al. Br. J. Pharmacol.* **153(5)**, 1003-1010 (2009).
3. Lee, S.H., Seo, H.J., Lee, S.H., *et al. J. med. Chem.* **51(22)**, 7216-7233 (2008).
4. Bellocchio, L., Soria-Gómez, E., Quarta, C., *et al. Proc. Natl. Acad. Sci. USA* **110(12)**, 4786-4791 (2013).

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