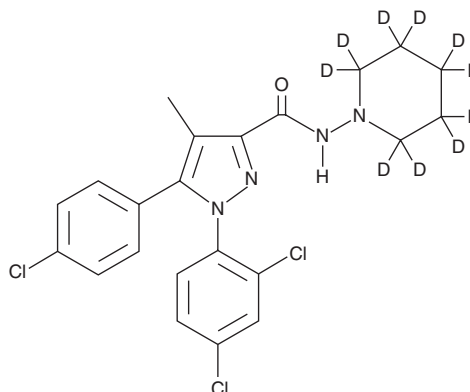


# PRODUCT INFORMATION



## Rimonabant-d<sub>10</sub> 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<sub>10</sub>)-1H-pyrazole-3-carboxamide  
**MF:** C<sub>22</sub>H<sub>11</sub>Cl<sub>3</sub>D<sub>10</sub>N<sub>4</sub>O  
**FW:** 473.8  
**Chemical Purity:** ≥98% (Rimonabant)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>10</sub>); ≤1% d<sub>0</sub>  
**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<sub>10</sub> 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<sub>10</sub> is supplied as a solid. A stock solution may be made by dissolving the rimonabant-d<sub>10</sub> in the solvent of choice, which should be purged with an inert gas. Rimonabant-d<sub>10</sub> is soluble in chloroform.

### Description

Rimonabant is a cannabinoid 1 (CB<sub>1</sub>) receptor antagonist (K<sub>i</sub> = 5.6 nM).<sup>1</sup> It is selective for CB<sub>1</sub> over CB<sub>2</sub> receptors (K<sub>i</sub> = >1,000 nM), as well as a panel of 37 other receptors and channels (IC<sub>50</sub>s = >1,000 nM). Rimonabant (10 μM) inhibits phytohemagglutinin-induced proliferation of isolated human peripheral blood mononuclear cells (PBMCs).<sup>2</sup> Intraperitoneal administration of rimonabant prevents decreases in body temperature and increases in tail-flick latency induced by the CB<sub>1</sub> and CB<sub>2</sub> receptor agonist (+)-WIN 55,212-2 (Item No. 10009023) in mice (ED<sub>50</sub>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.<sup>1,3</sup> 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.<sup>4</sup> 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).

#### 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.

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