Cannabinoid receptors are currently classified into three groups: central (CB1), peripheral (CB2) and GPR55, all of which are G-protein-coupled. CB1 receptors are primarily located at central and peripheral nerve terminals. CB2 receptors are predominantly expressed in non-neuronal tissues, particularly immune cells, where they modulate cytokine release and cell migration. Recent reports have suggested that CB2 receptors may also be expressed in the CNS. GPR55 receptors are non-CB1/CB2 receptors that exhibit affinity for endogenous, plant and synthetic cannabinoids. Endogenous ligands for cannabinoid receptors have been discovered, including anandamide and 2-arachidonylglycerol.
Cannabinoid Receptor Inhibitors & Modulators

(±)-SLV319
((±)-Ibipinabant; (±)-BMS6462)
Cat. No.: HY-14791A

**Bioactivity:** (±)-SLV319 is the racemate of SLV319. SLV319 is a potent and selective cannabinoid-1 (CB-1) receptor antagonist with an IC\textsubscript{50} of 22 nM.

**Purity:** 99.49%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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A-836339
Cat. No.: HY-12761

**Bioactivity:** A-836339 is a cannabinoid CB2 receptor-selective agonist; exhibits high potencies at CB(2) and selectivity over CB(1) receptors.

**Purity:** 99.61%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg

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AM251
Cat. No.: HY-15443

**Bioactivity:** AM251 is a selective cannabinoid (CB)1 receptor antagonist with IC\textsubscript{50} of 8 nM, also acts as an agonist at micromolar concentration.

**Purity:** 99.92%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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AM630
Cat. No.: HY-15421

**Bioactivity:** AM630 is a selective CB\textsubscript{2} antagonist with K\textsubscript{i} of 31.2 nM, and displays 165-fold selectivity over CB\textsubscript{1} receptors.

**Purity:** 99.35%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

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Bay 59-3074
Cat. No.: HY-100488

**Bioactivity:** Bay 59-3074 is a novel, selective CB1/CB2 receptor partial agonist with Ki values of 48.3 and 45.5 nM at human CB1 and CB2 receptors respectively. Orally active CB1 agonist in vivo.

**Purity:** 98.01%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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BML-190
(Indomethacin morpholinylnamide; IMMA)
Cat. No.: HY-15420

**Bioactivity:** BML-190(IMMA) is a potent and selective CB2 receptor ligand (Ki values are 435 nM and > 2 μM for CB2 and CB1 respectively).

**Purity:** 99.34%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

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CB1 antagonist 1
Cat. No.: HY-U00397

**Bioactivity:** CB1 antagonist 1 is an antagonist of CB1 receptor, used in the research of metabolic syndrome and obesity, neuroinflammatory disorders, cognitive disorders and psychosis, gastrointestinal disorders, and cardiovascular conditions.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg, 10 mg

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CB1-IN-1
Cat. No.: HY-12790

**Bioactivity:** CB1-IN-1 is a peripherally restricted CB1R antagonist, with Ki of 0.3 nM and 21 nM for CB1R (EC\textsubscript{50} = 3 nM) and CB2R, respectively.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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CB2R-IN-1
Cat. No.: HY-100328

**Bioactivity:** CB2R-IN-1 is a potent cannabinoid CB\textsubscript{2} receptor inverse agonist with a K\textsubscript{i} of 0.9 nM.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg, 10 mg

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GW842166X
Cat. No.: HY-14167

**Bioactivity:** GW842166X is a potent and selective cannabinoid receptor 2 (CB2) agonist with H\textsubscript{S0} values of 63 and 91 nM for human and rat CB2, respectively.

**Purity:** 99.97%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg

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**JD-5037**  
**Bioactivity:** JD-5037 is a novel, peripherally restricted CB₁R antagonist with an IC\textsubscript{50} of 1.5 nM.  
**Purity:** 98.05%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

**JWH-133**  
**Bioactivity:** JWH 133 is a potent CB2 selective agonist with Ki of 3  
**Purity:** 95.0%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

**MDA 19**  
**Bioactivity:** MDA 19 is a selective human CB2 receptor agonist with Ki of 43.3 nM.  
**Purity:** 99.56%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**Org 27569**  
**Bioactivity:** Org 27569 is a potent CB1 receptor allosteric modulator, which increases agonist binding, yet blocks agonist-induced CB1 signaling.  
**Purity:** 98.91%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

**Otenabant (CP-945598)**  
**Bioactivity:** Otenabant is a potent and selective cannabinoid receptor CB1 antagonist with Ki of 0.7 nM, exhibits 10,000-fold greater selectivity against human CB2 receptor.  
**Purity:** 99.65%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**Otenabant Hydrochloride (CP 945598 Hydrochloride)**  
**Bioactivity:** Otenabant Hydrochloride is a potent and selective cannabinoid receptor CB1 antagonist with Ki of 0.7 nM, exhibits 10,000-fold greater selectivity against human CB2 receptor.  
**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 50 mg

**Pregnenolone (Arthenolone; 3β-Hydroxy-5-pregnen-20-one)**  
**Bioactivity:** Pregnenolone is an endogenous steroid hormone for inhibition of M1 receptor and M3 receptor-mediated currents with IC\textsubscript{50} of 11  
**Purity:** 98.0%  
**Clinical Data:** Phase 4  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

**Rimonabant (SR141716)**  
**Bioactivity:** Rimonabant(SR141716) is a selective central cannabinoid (CB1) receptor inverse agonist with Ki of 1.8 nM.  
**Purity:** >98%  
**Clinical Data:** Phase 4  
**Size:** 10 mg, 50 mg, 100 mg

**Rimonabant Hydrochloride (SR 141716A; SR 151716A)**  
**Bioactivity:** Rimonabant hydrochloride is a cannabinoid receptor antagonist, which binds selectively to central cannabinoid receptors (CB1) with high affinity (K\textsubscript{i}=2 nM).  
**Purity:** 99.08%  
**Clinical Data:** Phase 4  
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

**SR144528**  
**Bioactivity:** SR144528 is a potent and selective CB2 receptor antagonist with a K\textsubscript{i} of 0.6 nM.  
**Purity:** 99.61%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg
Taranabant (MK-0364)  
Cat. No.: HY-10013

**Bioactivity:** Taranabant is a highly potent and selective cannabinoid 1 (CB1) receptor inverse agonist that inhibits the binding and functional activity of various agonists, with a binding $K_i$ of 0.13 nM for the human CB1R in vitro.

**Purity:** 99.46%
**Clinical Data:** Phase 3
**Size:** 10mM x 1mL in DMso, 2 mg, 5 mg, 10 mg, 25 mg

Taranabant racemate (MK-0364 racemate)  
Cat. No.: HY-10013A

**Bioactivity:** Taranabant racemate is an antagonist and/or inverse agonist of the Cannabinoid-1 (CB1) receptor extracted from patent WO 2004048317 A1.

**Purity:** 99.74%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMso, 2 mg, 5 mg, 10 mg

WIN 55,212-2 Mesylate ((R)-(−)-WIN 55212)  
Cat. No.: HY-13291

**Bioactivity:** WIN 55,212-2 (Mesylate) is a potent aminoalkylindole cannabinoid (CB) receptor agonist with $K_i$ of 62.3 and 3.3 nM for human recombinant CB1 and CB2 receptors, respectively.

**Purity:** 98.98%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMso, 5 mg, 10 mg, 50 mg, 100 mg

β-Caryophyllene ((−)-trans-Caryophyllene; (−)-β-caryophyllene; (−)-(E)-Caryophyllene)  
Cat. No.: HY-N1415

**Bioactivity:** β-Caryophyllene is a CB2 receptor agonist.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMso, 500 mg

Taranabant ((1R,2R)stereoisomer)  
Cat. No.: HY-10013B

**Bioactivity:** Taranabant (1R,2R)stereoisomer is the R-enantiomer of Taranabant. Taranabant is a highly potent and selective cannabinoid 1 (CB1) receptor inverse agonist.

**Purity:** 98.0%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMso, 2 mg, 5 mg, 10 mg

Tetrahydrocannabivarin (O4394; THC-V)  
Cat. No.: HY-U00342

**Bioactivity:** Tetrahydrocannabivarin is a cannabinoid type 1 (CB1) receptor neutral antagonist, with possible therapeutic activity for type 2 diabetes.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 1 mg

Yangonin  
Cat. No.: HY-N0919

**Bioactivity:** Yangonin exhibits affinity for the human recombinant cannabinoid CB1 receptor with an IC$_{50}$ and a $K_i$ of 1.79 ± 0.53 μM and 0.72±0.21 μM, respectively.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 5 mg, 10 mg

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