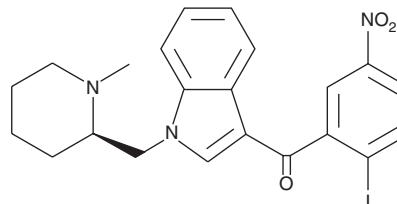


PRODUCT INFORMATION



(R)-AM1241 Item No. 10491

CAS Registry No.: 444912-51-0
Formal Name: (2-iodo-5-nitrophenyl)[1-[[[(2R)-1-methyl-2-piperidiny]methyl]-1H-indol-3-yl]methanone
Synonym: (+)-AM1241
MF: C₂₂H₂₂IN₃O₃
FW: 503.3
Purity: ≥98%
UV/Vis.: λ_{max}: 251, 310 nm
Supplied as: A 10 mg/ml solution in acetonitrile
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(R)-AM1241 is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (R)-AM1241 in these solvents is approximately 5, 10, and 25 mg/ml, respectively.

(R)-AM1241 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the DMF solution of (R)-AM1241 should be diluted with the aqueous buffer of choice. (R)-AM1241 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method.

Description

(R)-AM1241 binds to cannabinoid (CB) receptors and has greater than 100-fold selectivity for the CB₂ over the CB₁ receptor (K_s = 15 and 5,000 nM, respectively, in a membrane assay using human receptors).¹ (R)-AM1241 acts as an agonist at human CB₂ receptors (EC₅₀ = 118 nM) but an inverse agonist at rat and mouse CB₂ receptors (EC₅₀s = 315 and 341 nM, respectively). Similar to the racemate AM1241 (Item No. 10010118), (R)-AM1241 produces antinociception to thermal, but not mechanical, pain in rats.² The pain-reducing effect of (R)-AM1241 is blocked by the CB₂-specific inhibitor SR 144528 (Item No. 9000491) but not by either the CB₁-selective inhibitor rimonabant (Item No. 9000484) or the opioid receptor blocker naloxone (Item No. 15594 | ISO60191).

References

1. Bingham, B., Jones, P.G., Uveges, A.J., *et al.* Species-specific *in vitro* pharmacological effects of the cannabinoid receptor 2 (CB₂) selective ligand AM1241 and its resolved enantiomers. *Br. J. Pharmacol.* **151**(7), 1061-1070 (2007).
2. Rahn, E.J., Zvonok, A.M., Makriyannis, A., *et al.* Antinociceptive effects of racemic AM1241 and its chirally synthesized enantiomers: Lack of dependence upon opioid receptor activation. *AAPS J.* **12**(2), 147-157 (2010).

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

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