

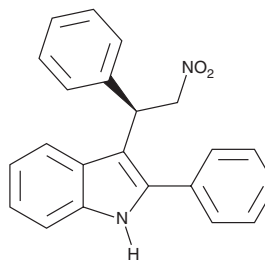
PRODUCT INFORMATION



GAT228

Item No. 24485

CAS Registry No.: 1446648-15-2
Formal Name: 3-[(1R)-2-nitro-1-phenylethyl]-2-phenyl-1H-indole
MF: $C_{22}H_{18}N_2O_2$
FW: 342.4
Purity: $\geq 98\%$
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

GAT228 is supplied as a solid. A stock solution may be made by dissolving the GAT228 in the solvent of choice, which should be purged with an inert gas. GAT228 is soluble in the organic solvent DMSO at a concentration of approximately 20 mg/ml.

Description

GAT228 is an allosteric agonist of cannabinoid receptor 1 (CB_1), the R-(+)-enantiomer of the CB_1 positive allosteric modulator (PAM) GAT229 (Item No. 24486), and a component of the racemic mixture GAT211, which acts as both an agonist and PAM.^{1,2} GAT228 increases β -arrestin recruitment, cAMP inhibition, and ERK1/2 and PLC β 3 phosphorylation in HEK293A cells expressing GFP-tagged human CB_1 (h CB_1 -GFP) in a concentration-dependent manner.¹ Unlike GAT229, GAT228 has no effect on the binding of the CB receptor agonist CP 55,940 to membranes from CHO cells expressing h CB_1 when used at concentrations up to 1 μM . It inhibits excitatory postsynaptic currents (EPSCs) in a subset of CB_1 -expressing murine autaptic hippocampal neurons when used at a concentration of 1 μM .²

References

1. Laprairie, R.B., Kulkarni, P.M., Deschamps, J.R., *et al.* Enantiospecific allosteric modulation of cannabinoid 1 receptor. *ACS Chem Biol.* **8**(6), 1188-1203 (2017).
2. Mitjavila, J., Yin, D., Kulkarni, P.M., *et al.* Enantiomer-specific positive allosteric modulation of CB_1 signaling in autaptic hippocampal neurons. *Pharmacol. Res.* **129**, 475-481 (2018).

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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