

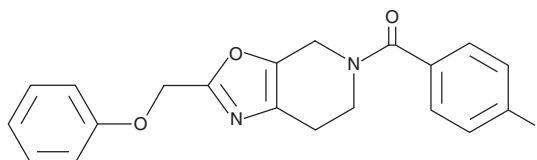
PRODUCT INFORMATION



VU0409551

Item No. 18042

CAS Registry No.: 1363281-27-9
Formal Name: [6,7-dihydro-2-(phenoxyethyl)oxazolo[5,4-c]pyridin-5(4H)-yl] (4-fluorophenyl)-methanone
Synonym: JNJ-46778212
MF: C₂₀H₁₇FN₂O₃
FW: 352.4
Purity: ≥98%
UV/Vis.: λ_{max}: 222 nm
Supplied as: A crystalline 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

VU0409551 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0409551 in the solvent of choice, which should be purged with an inert gas. VU0409551 is soluble in organic solvents such as ethanol and DMSO.

Description

VU0409551 is a positive allosteric modulator (PAM) of metabotropic glutamate receptor 5 (mGluR5).¹ It induces calcium mobilization in HEK293 cells expressing human mGluR5 (EC₅₀ = 260 nM). It is selective for mGluR5 over mGluR1-4 and mGluR6-8 at 10 μM. VU0409551 reverses amphetamine-induced hyperlocomotion in rats (ED₅₀ = 23 mg/kg), indicating antipsychotic-like activity.¹ It increases levels of c-fos and expression of BDNF, Arc/Arg3.1, syntaxin 1A, and post-synaptic density-95 (PSD-95) in the hippocampus in the BACHD mouse model of Huntington's disease when administered at a dose of 3 mg/kg.² VU0409551 (3 mg/kg) also improves object location memory in the novel object location test and associative memory in the cued fear conditioning test in the BACHD mouse model.

References

1. Conde-Ceide, S., Martínez-Vituro, C.M., Alcázar, J., *et al.* Discovery of VU0409551/JNJ-46778212: An mGlu5 positive allosteric modulator clinical candidate targeting schizophrenia. *ACS Med. Chem. Lett.* **6**(6), 716-720 (2015).
2. Doria, J.G., de Souza, J.M., Silva, F.R., *et al.* The mGluR5 positive allosteric modulator VU0409551 improves synaptic plasticity and memory of a mouse model of Huntington's disease. *J. Neurochem.* **147**(2), 222-239 (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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