

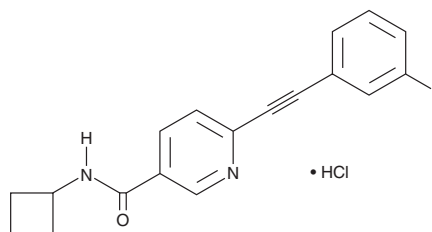
PRODUCT INFORMATION



VU0360172 (hydrochloride)

Item No. 22074

CAS Registry No.: 1309976-62-2
Formal Name: N-cyclobutyl-6-[2-(3-fluorophenyl)ethynyl]-3-pyridinecarboxamide, monohydrochloride
MF: $C_{18}H_{15}FN_2O \cdot HCl$
FW: 330.8
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 308 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

VU0360172 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0360172 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. VU0360172 (hydrochloride) is soluble in the organic solvent DMSO.

Description

VU036172 is a positive allosteric modulator of metabotropic glutamate receptor 5 (mGluR5; $K_i = 195$ nM).¹ It is selective for mGluR5 over mGluR1, mGluR3, and mGluR4 at 10 μ M. VU036172 (20 and 50 μ M) prevents TNF- α and nitric oxide (NO) production by IFN- γ - or LPS-stimulated BV-2 and primary microglial cells.² It reduces the expression of inducible nitric oxide synthase (iNOS) and increases the expression of Ym1 and arginase 1 in LPS-stimulated BV-2 cells when used at a concentration of 20 μ M. VU036172 (50 mg/kg) reduces the size of cortical lesions, prevents neuronal degeneration, and improves sensorimotor deficits in the beam walk test in a mouse model of traumatic brain injury (TBI), indicating improved recovery of motor function.

References

1. Rodriguez, A.L., Grier, M.D., Jones, C.K., *et al.* Discovery of novel allosteric modulators of metabotropic glutamate receptor subtype 5 reveals chemical and functional diversity and in vivo activity in rat behavioral models of anxiolytic and antipsychotic activity. *Mol. Pharmacol.* **78**(6), 1105-1123 (2010).
2. Loane, D.J., Stoica, B.A., Tchantchou, F., *et al.* Novel mGluR5 positive allosteric modulator improves functional recovery, attenuates neurodegeneration, and alters microglial polarization after experimental traumatic brain injury. *Neurotherapeutics* **11**(4), 857-869 (2014).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM