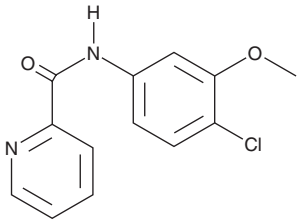
PRODUCT INFORMATION

VU0361737

Item No. 16295

CAS Registry No.:	1161205-04-4
Formal Name:	N-(4-chloro-3-methoxyphenyl)-2-pyridinecarboxamide
MF:	$C_{13}H_{11}ClN_2O_2$
FW:	262.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 302 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

VU0361737 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0361737 in the solvent of choice, which should be purged with an inert gas. VU0361737 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of VU0361737 in ethanol is approximately 10 mg/ml and approximately 50 mg/ml in DMSO and DMF.

VU0361737 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VU0361737 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. VU0361737 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Metabotropic glutamate receptors (mGluRs) modulate brain excitability through diverse mechanisms.[1] VU0361737 is a selective positive allosteric modulator (PAM) of mGluR4, displaying EC_{50} values of 110 and 240 nM for rat and human receptors, respectively.[2] It has weak or no activity at other mGluRs.[2] VU0361737 passes the blood-brain barrier to act centrally in rats.[2,3] VU0361737, alone or in combination with an mGluR2 selective PAM, does not potentiate glutamate responses through mGlu2/4 heterodimers.[4]

References

1. Schoepp, D.D. Unveiling the functions of presynaptic metabotropic glutamate receptors in the central nervous system. *J. Pharmacol. Exp. Ther.* **299(1)**, 12-20 (2001).
2. Engers, D.W., Niswender, C.M., Weaver, C.D., *et al.* Synthesis and evaluation of a series of heterobiarylamides that are centrally penetrant metabotropic glutamate receptor 4 (mGluR4) positive allosteric modulators (PAMs). *J. Med. Chem.* **52(14)**, 4115-4118 (2009).
3. Engers, D.W., Field, J.R., Le, U., *et al*. Discovery, synthesis, and structure-activity relationship development of a series of N-(4-acetamido)phenylpicolinamides as positive allosteric modulators of metabotropic glutamate receptor 4 (mGlu(4)) with CNS exposure in rats. *J. Med. Chem*. **54(4)**, 1106-1110 (2011).
4. Kammermeier, P.J. Functional and pharmacological characteristics of metabotropic glutamate receptors 2/4 heterodimers. *Mol. Pharmacol*. **82(3)**, 438-447 (2012).

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