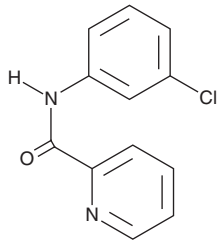
PRODUCT INFORMATION

VU0364770

Item No. 22927

CAS Registry No.:	61350-00-3
Formal Name:	N-(3-chlorophenyl)-2-pyridinecarboxamide
MF:	$C_{12}H_9ClN_2O$
FW:	232.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 219, 277 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

VU0364770 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0364770 in the solvent of choice, which should be purged with an inert gas. VU0364770 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of VU0364770 in these solvents is approximately 5, 25, and 30 mg/ml, respectively.

VU0364770 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VU0364770 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. VU0364770 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

VU0364770 is a positive allosteric modulator of metabotropic glutamate receptor 4 (mGluR4; EC_{50} = 1.1 µM in a calcium mobilization assay).[1] It is also a positive allosteric modulator of mGluR6 (EC_{50} = 6.8 µM) and an antagonist of mGluR5 (IC_{50} = 17.9 µM). VU0364770 binds to monoamine oxidase A (MAO-A) and MAO-B (K_is = 8.5 and 7.2 µM, respectively), as well as the human norepinephrine transporter in a panel of 68 receptors, ion channels, and transporters at 10 µM. It decreases haloperidol-induced catalepsy and reduces increases in the number of premature reactions in response to a light cue, indicating improved attentional control, in a 6-hydroxydopamine (6-OHDA; Item No. 25330) rat model of Parkinson's disease when administered at a dose of 56.6 mg/kg.

References

1. Jones, C.K., Bubser, M., Thompson, A.D., *et al.* The metabotropic glutamate receptor 4-positive allosteric modulator VU0364770 produces efficacy alone and in combination with L-DOPA or an adenosine 2A antagonist in preclinical rodent models of Parkinson's disease. *J. Pharmacol. Exp. Ther.* **340(2),** 404-421 (2012).

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