

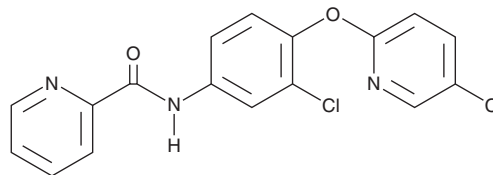
# PRODUCT INFORMATION



## ML-396

Item No. 29167

**CAS Registry No.:** 1630936-95-6  
**Formal Name:** N-[3-chloro-4-[(5-chloro-2-pyridinyl)oxy]phenyl]-2-pyridinecarboxamide  
**Synonym:** VU0422288  
**MF:** C<sub>17</sub>H<sub>11</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 360.2  
**Purity:** ≥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

ML-396 is supplied as a solid. A stock solution may be made by dissolving the ML-396 in the solvent of choice, which should be purged with an inert gas. ML-396 is slightly soluble in chloroform and DMSO.

### Description

ML-396 is a positive allosteric modulator of group III metabotropic glutamate receptors (mGluRs) with EC<sub>50</sub> values of 108, 146, and 128 nM for mGluR4, mGluR7, and mGluR8, respectively, in calcium mobilization assays.<sup>1</sup> ML-396 potentiates LSP4-2022-induced reductions in paired-pulse field excitatory post synaptic potential (fEPSP) slopes in mouse hippocampal slices. *In vivo*, ML-396 (30 mg/kg) restores hippocampal long-term potentiation, improves novel object recognition, contextual fear learning, and social memory, and decreases sleep apneas in the *Mecp2*<sup>-/-</sup> mouse model of Rett syndrome.<sup>2</sup>

### References

1. Jalan-Sakrikar, N., Field, J.R., Klar, R., *et al.* Identification of positive allosteric modulators VU0155094 (ML397) and VU0422288 (ML396) reveals new insights into the biology of metabotropic glutamate receptor 7. *ACS Chem. Neurosci.* **5(12)**, 1221-1237 (2014).
2. Gogliotti, R.G., Senter, R.K., Fisher, N.M., *et al.* mGlu7 potentiation rescues cognitive, social, and respiratory phenotypes in a mouse model of Rett syndrome. *Sci. Transl. Med.* **9(403)**, (2017).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/07/2022

#### 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