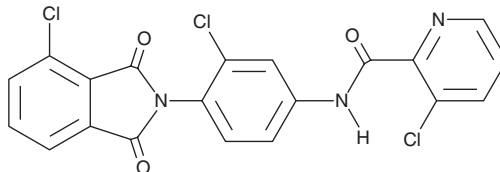


# PRODUCT INFORMATION



**VU0483605**  
Item No. 16941

**CAS Registry No.:** 1623101-11-0  
**Formal Name:** 3-chloro-N-[3-chloro-4-(4-chloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]-2-pyridinecarboxamide  
**MF:** C<sub>20</sub>H<sub>10</sub>Cl<sub>3</sub>N<sub>3</sub>O<sub>3</sub>  
**FW:** 446.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 219, 280 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

VU0483605 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0483605 in the solvent of choice, which should be purged with an inert gas. VU0483605 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of VU0483605 in these solvents is approximately 20 mg/ml.

VU0483605 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VU0483605 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. VU0483605 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Glutamate, the major excitatory neurotransmitter in the CNS, activates eight known subtypes of metabotropic glutamate receptors (mGluRs). Highly selective modulators designed to act at allosteric sites on certain mGluR subtypes are being developed to preferentially regulate subtype-specific, glutamate-induced receptor activation.<sup>1</sup> VU0483605 is a selective positive allosteric modulator (PAM) of mGluR1, displaying EC<sub>50</sub> values of 0.39 and 0.36 μM at human and rat receptors, respectively, and no activity as a mGlu4 PAM (EC<sub>50</sub> >10 μM).<sup>2</sup> It has been shown to potentiate a response to glutamate in wild-type cell lines stably expressing mGlu1 and to partially restore the reduction in glutamate-mediated calcium signaling in a mutant cell model of schizophrenia.<sup>2</sup>

## References

1. Sheffler, D.J. and Conn, P.J. Allosteric potentiators of metabotropic glutamate receptor subtype 1a differentially modulate independent signaling pathways in baby hamster kidney cells. *Neuropharmacology* **55**(4), 419-427 (2008).
2. Cho, H.P., Garcia-Barrantes, P.M., Brogan, J.T., *et al.* Chemical modulation of mutant mGlu1 receptors derived from deleterious GRM1 mutations found in schizophrenics. *ACS Chem. Biol.* **9**(10), 2334-2346 (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.

### 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.

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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](http://WWW.CAYMANCHEM.COM)