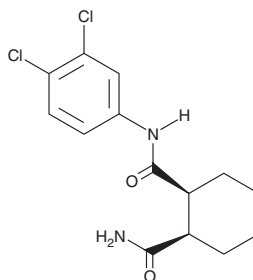


# PRODUCT INFORMATION



## Lu AF21934 Item No. 27045

**CAS Registry No.:** 1445605-23-1  
**Formal Name:** N<sup>1</sup>-(3,4-dichlorophenyl)-1S,2R-cyclohexanedicarboxamide  
**MF:** C<sub>14</sub>H<sub>16</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 315.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 211, 252 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

Lu AF21934 is supplied as a crystalline solid. A stock solution may be made by dissolving the Lu AF21934 in the solvent of choice, which should be purged with an inert gas. Lu AF21934 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Lu AF21934 in these solvents is approximately 30 mg/ml.

Lu AF21934 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Lu AF21934 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Lu AF21934 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Lu AF21934 is a positive allosteric modulator (PAM) of metabotropic glutamate receptor 4 (mGluR4; EC<sub>50</sub> = 500 nM for the human receptor in a FLIPR assay).<sup>1</sup> It is selective for mGluR4 over mGluR6 (EC<sub>50</sub> = 7 μM) and a panel of 73 CNS ion channels, G protein-coupled receptors (GPCRs), and enzymes at 10 μM. Lu AF21934 (12 mg/kg) reduces marble burying behavior and stress-induced hyperthermia in mice, indicating anxiolytic-like activity, but also reduces locomotor activity. It inhibits MK-801- and amphetamine-induced hyperactivity in mice and prevents MK-801-induced decreases in social interaction in rats.<sup>2</sup> Lu AF21934 (0.5 and 2.5 mg/kg) also reduces harmaline-induced hyperactivity, but not tremor, in rats.<sup>3</sup>

### References

1. Sławińska, A., Wierońska, J.M., Stachowicz, K., *et al.* Anxiolytic- but not antidepressant-like activity of Lu AF21934, a novel, selective positive allosteric modulator of the mGlu<sub>4</sub> receptor. *Neuropharmacology* **66**, 225-235 (2013).
2. Sławińska, A., Wierońska, J.M., Stachowicz, K., *et al.* The antipsychotic-like effects of positive allosteric modulators of metabotropic glutamate mGlu<sub>4</sub> receptors in rodents. *Br. J. Pharmacol.* **169(8)**, 1824-1839 (2013).
3. Ossowska, K., Wardas, J., Berghauzen-Maciejewska, K., *et al.* Lu AF21934, a positive allosteric modulator of mGlu<sub>4</sub> receptors, reduces the harmaline-induced hyperactivity but not tremor in rats. *Neuropharmacology* **83**, 28-35 (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

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