# **PRODUCT** INFORMATION



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Loxapine-d<sub>8</sub>

Item No. 33537

| CAS Registry No.:       | 1189455-63-7  |                             |
|-------------------------|---|-----------------------------|
| Formal Name:            | 2-chloro-11-(4-methylpiperazin-1-yl-  |                             |
|                         | 2,2,3,3,5,5,6,6-d <sub>8</sub> )dibenzo[b,f][1,4]oxazepine                  | N N                         |
| MF:                     | $C_{18}H_{10}CID_8N_3O$   |                             |
| FW:                     | 335.9   |                             |
| <b>Chemical Purity:</b> | ≥98% (Loxapine)   |                             |
| Deuterium               |   | N D                         |
| Incorporation:          | ≥99% deuterated forms (d <sub>1</sub> -d <sub>8</sub> ); ≤1% d <sub>0</sub> |                             |
| Supplied as:            | A solid   |                             |
| Storage:                | -20°C   |                             |
| Stability:              | ≥4 years  | $\rightarrow$ $\sim$ $\sim$ |
|                         |   |                             |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

# Laboratory Procedures

Loxapine- $d_8$  is intended for use as an internal standard for the quantification of oxapine (Item No. 20760) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Loxapine-d<sub>8</sub> is supplied as a solid. A stock solution may be made by dissolving the loxapine-d<sub>8</sub> in the solvent of choice, which should be purged with an inert gas. Loxapine- $d_8$  is soluble in methanol, DMŠO, and acetonitrile.

# Description

Loxapine is an atypical antipsychotic.<sup>1</sup> It binds to the serotonin (5-HT) receptor subtypes 5-HT<sub>1A</sub>, 5-HT<sub>2A</sub>, 5-HT<sub>2C</sub>, 5-HT<sub>6</sub>, and 5-HT<sub>7</sub> (K<sub>i</sub>s = 2,456, 7.7, 9.5, 32, and 87.2 nM, respectively), as well as dopamine  $D_2$ , histamine  $H_1$ , and  $M_3$  muscarinic acetylcholine receptors (K<sub>i</sub>s = 12, 7, and 122 nM, respectively). Loxapine also binds to  $\alpha_{1A}^{-}$ ,  $\alpha_{2A}^{-}$ ,  $\alpha_{2B}^{-}$ , and  $\alpha_{2C}^{-}$  adrenergic receptors (K s = 31, 150.8, 107.6, and 79.9 nM, respectively). Formulations containing loxapine have been used in the treatment of schizophrenia.

# Reference

1. Kroeze, W.K., Hufeisen, S.J., Popadak, B.A., et al. H1-histamine receptor affinity predicts short-term weight gain for typical and atypical antipsychotic drugs. Neuropsychopharmacology 28(3), 519-526 (2003).

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.

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