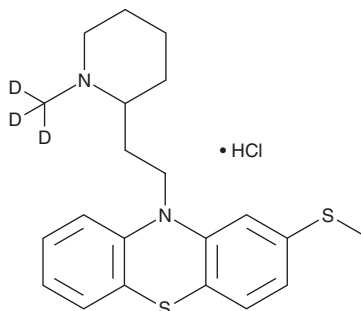


# PRODUCT INFORMATION

## Thioridazine-d<sub>3</sub> (hydrochloride)

Item No. 30239

**CAS Registry No.:** 1189928-36-6  
**Formal Name:** 10-(2-(1-(methyl-d<sub>3</sub>)piperidin-2-yl)ethyl)-2-(methylthio)-10H-phenothiazine, monohydrochloride  
**Synonym:** Aldazine-d<sub>3</sub>  
**MF:** C<sub>21</sub>H<sub>23</sub>D<sub>3</sub>N<sub>2</sub>S<sub>2</sub> • HCl  
**FW:** 410.1  
**Chemical Purity:** ≥98% (Thioridazine)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>); ≤1% d<sub>0</sub>  
**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

Thioridazine-d<sub>3</sub> (hydrochloride) is intended for use as an internal standard for the quantification of thioridazine (Item No. 14400) 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).

Thioridazine-d<sub>3</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the thioridazine-d<sub>3</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Thioridazine-d<sub>3</sub> (hydrochloride) is slightly soluble in methanol.

### Description

Thioridazine is a typical antipsychotic.<sup>1</sup> It binds to dopamine D<sub>2</sub>, histamine H<sub>1</sub>, M<sub>3</sub> muscarinic, and α<sub>1</sub>- and α<sub>2</sub>-adrenergic receptors (K<sub>i</sub>s = 5-341.3 nM), as well as 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 = 10-180.7 nM). Thioridazine (5 mg/kg) reduces amphetamine-induced repetitive head bobbing and oral behavior in rats.<sup>2</sup> It reduces conditioned fear stress-induced freezing behavior in rats when administered at doses ranging from 3 to 100 mg/kg.<sup>3</sup> Thioridazine is also active against multidrug-resistant tuberculosis *in vitro* and *in vivo*.<sup>4</sup>

### References

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).
2. Tschanz, J.T. and Rebec, G.V. Atypical antipsychotic drugs block selective components of amphetamine-induced stereotypy. *Pharmacol. Biochem. Behav.* **31**(3), 519-522 (1988).
3. Ishida-Tokuda, K., Ohno, Y., Sakamoto, H., *et al.* Evaluation of perospirone (SM-9018), a novel serotonin-2 and dopamine-2 receptor antagonist, and other antipsychotics in the conditioned fear stress-induced freezing behavior model in rats. *Jpn. J. Pharmacol.* **72**(2), 119-126 (1996).
4. Amaral, L. Thioridazine: An old neuroleptic effective against totally drug resistant tuberculosis. *Acta Med. Port.* **25**(2), 118-121 (2012).

#### 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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