

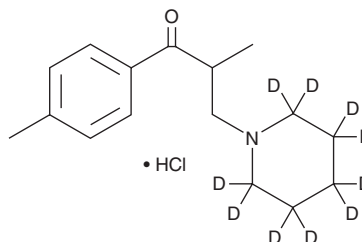
# PRODUCT INFORMATION



## Tolperisone-d<sub>10</sub> (hydrochloride)

Item No. 22592

CAS Registry No.: 1185160-65-9  
Formal Name: 3-2,2,3,3,4,4,5,5,6,6-decadeuteriopiperidin-1-yl)-2-methyl-1-(4-methylphenyl)propan-1-one, monohydrochloride)  
MF: C<sub>16</sub>H<sub>13</sub>D<sub>10</sub>NO • HCl  
FW: 291.9  
Chemical Purity: ≥98% (Tolperisone)  
Deuterium  
Incorporation: ≥99% deuterated forms (d<sub>1</sub>-d<sub>10</sub>); ≤1% d<sub>0</sub>  
Supplied as: A solid  
Storage: 2-8°C  
Stability: ≥4 years



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

### Laboratory Procedures

Tolperisone-d<sub>10</sub> is intended for use as an internal standard for the quantification of tolperisone 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).

### Description

Tolperisone is a piperidine that acts as an inhibitor of voltage-gated sodium channels with an IC<sub>50</sub> value of 198 μM, for inhibition of peak sodium currents evoked by step depolarizations in dorsal root ganglion (DRG) neurons, *in vitro*.<sup>1</sup> Tolperisone acts as an antispastic agent that attenuates monosynaptic, disynaptic, and polysynaptic reflex response to dorsal root stimulation *in vivo*. Formulations containing tolperisone are used as analgesics and muscle relaxants.

### Reference

1. Kocsis, P., Farkas, S., Fodor, L., *et al.* Tolperisone-type drugs inhibit spinal reflexes via blockade of voltage-gated sodium and calcium channels. *J. Pharmacol. Exp. Ther.* **315**(3), 1237-1246 (2005).

#### 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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