

# PRODUCT INFORMATION



## (+)-Norpropoxyphene-d<sub>5</sub> (maleate)

Item No. 15838

**Formal Name:** (αS)-α-[(1R)-1-methyl-2-(methylamino)ethyl]-α-phenyl-d<sub>5</sub>-benzeneethanol propanoate (ester), 2Z-butenedioate

**MF:** C<sub>21</sub>H<sub>22</sub>D<sub>5</sub>NO<sub>2</sub> • C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

**FW:** 446.6

**Chemical Purity:** ≥95% ((+)-Norpropoxyphene)

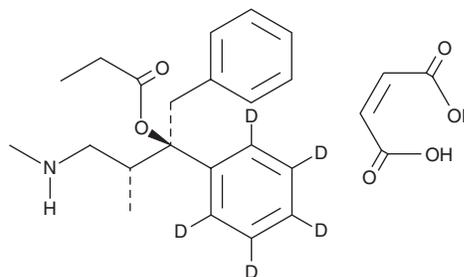
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥5 years



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

### Description

(+)-Norpropoxyphene-d<sub>5</sub> (maleate) (Item No. 15838) is an analytical reference standard intended for use as an internal standard for the quantification of norpropoxyphene (Item No. 15291) 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).

Norpropoxyphene is categorized as an opioid.<sup>1</sup> It is a metabolite of propoxyphene (Item Nos. 22769 | ISO60184).<sup>2</sup> This product is intended for research and forensic applications.

### References

1. Depriest, A., Heltsley, R., Black, D.L., *et al.* Urine drug testing of chronic pain patients. III. Normetabolites as biomarkers of synthetic opioid use. *J. Anal. Toxicol.* **34(8)**, 444-449 (2010).
2. Crews, B.A., Mikel, C., Latyshev, S., *et al.* Unstable propoxyphene metabolite excreted in human urine is detected by liquid chromatography-tandem mass spectrometry. *J. Anal. Toxicol.* **33(7)**, 379-383 (2009).

#### 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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