# **PRODUCT** INFORMATION



Norfentanyl-d<sub>5</sub>

Item No. 15832

CAS Registry No.:	1211527-23-9	,H
Formal Name:	N-(phenyl-d <sub>5</sub> )-N-4-piperidinyl-	0
	propanamide	
MF:	C <sub>14</sub> H <sub>15</sub> D <sub>5</sub> N <sub>2</sub> O	$\sim$ N <sup>2</sup> $\sim$
FW:	237.4	DD
Purity:	≥98%	Ĭ I
Supplied as:	A neat solid	
Storage:	-20°C	
Stability:	≥5 years	D

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

## Description

Norfentanyl-d<sub>5</sub> (hydrochloride) (Item No. 15832) is intended for use as an internal standard for the quantification of norfentanyl (Item No. 15899) 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).

Norfentanyl is a thermal degradant and major urinary metabolite of the opioid analgesic, fentanyl (Item Nos. ISO60197 | 14719).<sup>1,2</sup> This product is intended for forensic and research applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards for reference materials.

## References

- 1. Garg, A., Solas, D.W., Takahashi, L.H., et al. Forced degradation of fentanyl: Identification and analysis of impurities and degradants. J. Pharm. Biomed. Anal. 53(3), 325-334 (2010).
- 2. Poklis, A. and Backer, R. Urine concentrations of fentanyl and norfentanyl during application of Duragesic® transdermal patches. J. Anal. Toxicol. 28(6), 422-425 (2004).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFFTY 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.

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.

Copyright Cayman Chemical Company, 03/10/2021

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM