

PRODUCT INFORMATION



para-Fluorobutyryl fentanyl-d₇ (hydrochloride) (exempt preparation) Item No. 45808

CAS Registry No.: 2747916-02-3

Formal Name: N-(4-fluorophenyl)-N-(1-phenethylpiperidin-4-yl)butanamide-d₇, monohydrochloride

Synonym: 4-FBF-d₇, *p*-FBF-d₇, *para*-FBF-d₇, 4-Fluorobutyryl fentanyl-d₇, *p*-Fluorobutyryl fentanyl-d₇

MF: C₂₃H₂₂D₇FN₂O • HCl

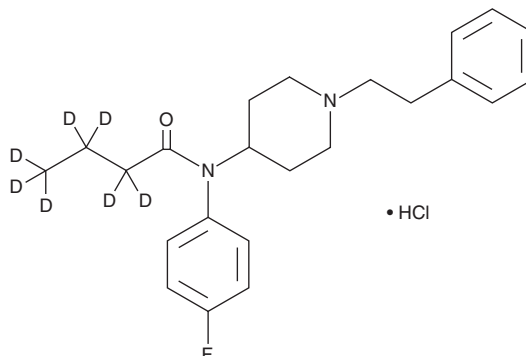
FW: 412.0

Purity: ≥98%

Supplied as: A 100 µg/ml solution in methanol

Storage: -20°C

Stability: ≥3 years



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

Description

para-Fluorobutyryl fentanyl-d₇ (hydrochloride) (exempt preparation) (Item No. 45808) is intended for use as an internal standard for the quantification of *para*-fluorobutyryl fentanyl (Item Nos. 19826 | 17049) 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).

para-Fluorobutyryl fentanyl is categorized as an opioid.¹⁻³ *para*-Fluorobutyryl fentanyl has antinociceptive activity in mice.^{2,3} It has been associated with fatal overdoses.⁴ *para*-Fluorobutyryl fentanyl-d₇ is regulated as a Schedule I compound in the United States. *para*-Fluorobutyryl fentanyl-d₇ (hydrochloride) (exempt preparation) (Item No. 45808) is provided as a DEA exempt preparation. This product is intended for research and forensic applications.

References

1. Kanamori, T., Okada, Y., Segawa, H., *et al.* Evaluation of agonistic activity of fluorinated and nonfluorinated fentanyl analogs on µ-opioid receptor using a cell-based assay system. *Biol. Pharm. Bull.* **44**(2), 159-161 (2021).
2. Huang, C., Santofimia-Castaño, P., Liu, X., *et al.* NUPR1 inhibitor ZZW-115 induces ferroptosis in a mitochondria-dependent manner. *Cell Death Discov.* **7**(1), 269 (2021).
3. Varshneya, N.B., Hassanien, S.H., Holt, M.C., *et al.* Fentanyl analog structure-activity relationships demonstrate determinants of diverging potencies for antinociception and respiratory depression. *Pharmacol. Biochem. Behav.* **226**, 173572 (2023).
4. Danaceau, J.P., Wood, M., Ehlers, M.D., *et al.* Analysis of 17 fentanyls in plasma and blood by UPLC-MS/MS with interpretation of findings in surgical and postmortem casework. *Clin. Mass Spec.* **18**, 38-47 (2020).

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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