

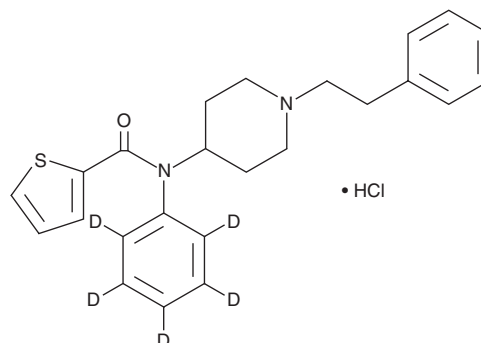
PRODUCT INFORMATION



Thiophene fentanyl-d₅ (hydrochloride)

Item No. 25135

CAS Registry No.: 2747914-12-9
Formal Name: N-(1-phenethylpiperidin-4-yl)-N-(phenyl-d₅)
thiophene-2-carboxamide, monohydrochloride
Synonyms: Thiofuranyl fentanyl-d₅, 2-Thiofuranyl fentanyl-d₅,
2-Thiophenoyl fentanyl-d₅
MF: C₂₄H₂₁D₅N₂OS • HCl
FW: 432.0
Chemical Purity: ≥98% (Thiophene fentanyl)
**Deuterium
Incorporation:** ≥99% deuterated forms (d₁-d₅); ≤1% d₀
UV/Vis.: λ_{max}: 248 nm
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

Thiophene fentanyl-d₅ (hydrochloride) (Item No. 25135) is intended for use as an internal standard for the quantification of thiophene fentanyl (Item No. 22802) 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).

Thiophene fentanyl is categorized as an opioid.^{1,2} It induces generalized responses in rats trained to discriminate morphine from saline.³ Thiophene fentanyl is regulated as a Schedule I compound in the United States. This product is intended for research and forensic applications.

References

1. Eshleman, A.J., Nagarajan, S., Wolfrum, K.M., *et al.* Affinity, potency, efficacy, selectivity, and molecular modeling of substituted fentanyls at opioid receptors. *Biochem. Pharmacol.* **182**, 114293 (2020).
2. Varshneya, N.B., Valentiny, D.M., Moisa, L.T., *et al.* Opioid-like antinociceptive and locomotor effects of emerging fentanyl-related substances. *Neuropharmacology* **151**, 171-179 (2019).
3. Eneanya, C., Walker, T., Tella, S., *et al.* Morphine drug discrimination: A behavioral model to assess novel synthetic opioid substances. *FASEB J.* **33(S1)**, 663.2-663.2 (2019).

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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