



CERTIFICATE OF ANALYSIS

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1. Identification

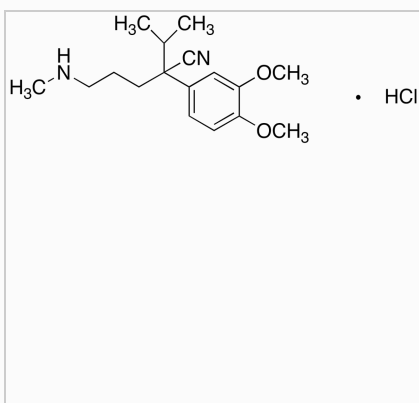
Catalogue Number: D461275

CAS Number: 67775-97-7

Product: 3,4-Dimethoxy- α -[3-(methylamino)propyl]- α -(1-methylethyl)-benzeneacetonitrile Hydrochloride

Synonym: 3,4-Dimethoxy- α -[3-(methylamino)propyl]- α -(1-methylethyl)-benzeneacetonitrile Monohydrochloride; USP Verapamil Related Compound A; Verapamil EP Impurity F HCl; Verapamil USP Related Compound A

Structure:



Molecular Formula:

C₁₇H₂₇ClN₂O₂

Molecular weight:

326.86

Source of Product:

Synthetic

Solubility:

Chloroform (Slightly), DMSO (Slightly), Methanol (Slightly), Water (Slightly)

Lot Number: 1-VEK-41-2

Purity: 97%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Off-White to Light Brown Solid	Off-White to Light Brown Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 62.27, %H: 8.35, %N: 8.57
MS	Conforms to Structure	Conforms
HPLC Purity	Report Result	96.90% (205 nm)
FT-IR	Conforms to Structure	Conforms
Specific Rotation	Report Result	-0.5° (c = 0.2, Methanol)

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Swathi Reddy	Toni Rantanen	Farnaz Mahmoudi	7/21/2021	7/19/2025