



CERTIFICATE OF ANALYSIS

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1. Identification

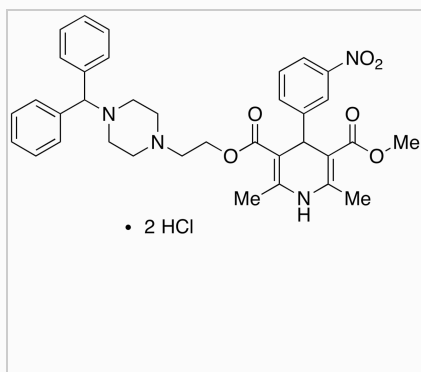
Catalogue Number: M164015

CAS Number: 89226-75-5

Product: Manidipine Dihydrochloride

Synonym: 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-Pyridinedicarboxylic Acid 3-[2-[4-(diphenylmethyl)-1-piperazinyl]ethyl] 5-methyl Ester Hydrochloride; (±)-Manidipine Dihydrochloride; CV 4093; Calslot; Franidipine Hydrochloride;

Structure:



Molecular Formula:

$C_{35}H_{38}N_4O_6 \cdot 2HCl$

Molecular weight:

610.71 + 2(36.46)

Source of Product:

N/A

Solubility:

DMSO (Sparingly, Heated),
Methanol (Slightly)

Lot Number: 2-OMK-56-1

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	White to Pale Yellow Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 61.22, %H: 5.92, %N: 8.12
MS	Conforms to Structure	Conforms
HPLC Purity	Report Result	98.30% (230 nm)

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
Evan Burns	Toni Rantanen	Chanell Chu	6/24/2021	6/22/2025