

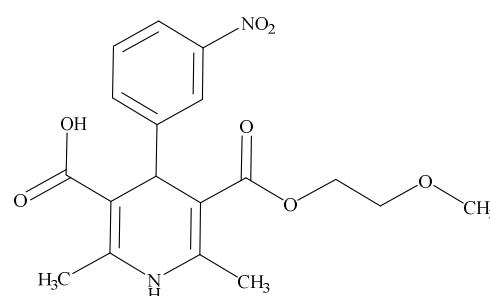
## Certificate of Analysis

Certificate No.: 20200318018

Date: March 18, 2020

Retest date: March 16, 2023

<b>Compound Name:</b> Cilnidipine Impurity 4	
<b>Synonyms:</b>	5-((2-methoxyethoxy)carbonyl)-2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3-carboxylic acid
<b>TLC Catalogue Number:</b>	C-166010
<b>CAS Number:</b>	74936-76-8
<b>Molecular Weight:</b>	376.37
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> N <sub>2</sub> O <sub>7</sub>
<b>Source:</b>	TLC Pharmaceutical Standards
<b>Source Lot No.:</b>	3770-060A4
<b>Storage Conditions:</b>	Store at 2-8 °C
<b>Solubility:</b>	THF, DMSO



Test Description	Specifications	Results
<b>Visual Description</b>	Pale yellow solid	<b>Conforms</b>
<b>Identification</b>		
<b>IR</b>	Conforms to structure	<b>Conforms</b>
<b>MS</b>	Conforms to structure	<b>Conforms</b>
<b><sup>1</sup>H NMR</b>	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>98.6%</b>
<b>Impurity (HPLC)</b>	RT 6.09, 0.17%; RT 16.16, 0.92%; RT 17.37, 0.17%	
<b>Water Content (KF)</b>	N/A	<b>0.3%</b>
<b>Residual Solvents (NMR)</b>	1.2% methanol and 0.1% isopropyl ether	
<b>Assay (%)</b>	Not less than 90.0%	<b>97.0%</b>
<b>Recommendation:</b>	<b>Released.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Analytical Services		
Approved by:	Quality Assurance		

**Attachments:** HPLC, IR, MS and NMR spectra.