



CERTIFICATE OF ANALYSIS

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1. Identification

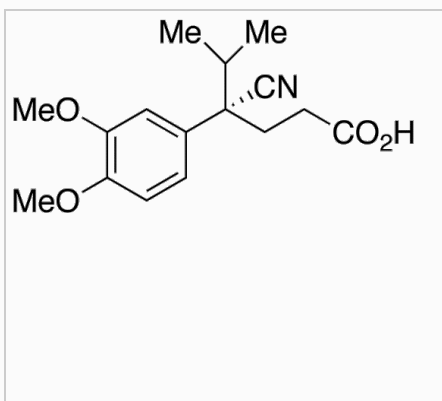
Catalogue Number: V126305

CAS Number: 36622-24-9

Product: (S)-(-)-Verapamilic Acid

Synonym: (S)-4-Cyano-4-(3,4-dimethoxyphenyl)-5-methylhexanoic Acid;

Structure:



Molecular Formula:

C₁₆H₂₁NO₄

Molecular weight:

291.34

Source of Product:

Synthetic

Solubility:

Chloroform (Slightly), Ethanol (Slightly, Heated), Ethyl Acetate, Methanol

Lot Number: 4-MIC-51-1

Purity: 95%

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	Colourless Semi-Solid to Gel	Clear Colourless Gel
Specific Rotation	Report Result	-32.5° (c = 0.5, Ethanol)
NMR	Conforms to Structure	Conforms
HPLC Purity	>95%	99.75% (205 nm)
MS	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 65.25, %H: 7.53, %N: 4.71

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 ± 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
Nicole Yip	Toni Rantanen	My Nguyen	3/16/2021	3/14/2031