



CERTIFICATE OF ANALYSIS

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1. Identification

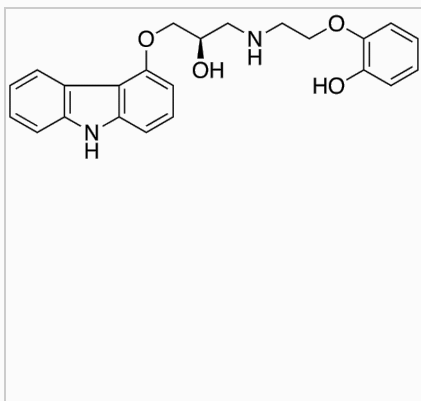
Catalogue Number: D291480

CAS Number: 123372-14-5

Product: (R)-(+)-O-Desmethyl Carvedilol

Synonym: (R)-2-[2-[[3-(9H-Carbazol-4-yloxy)-2-hydroxypropyl]amino]ethoxy]phenol;

Structure:



Molecular Formula:

C₂₃H₂₄N₂O₄

Molecular weight:

392.45

Source of Product:

Synthetic

Solubility:

Chloroform (Slightly),
Methanol (Slightly),
Tetrahydrofuran (Slightly)

Lot Number: 11-CF-82-4

Purity: 98%

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

Storage Condition: -20°C

2. Warning

Warning 1: Not Determined

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Off-White to Pale Beige Solid	Off-White to Pale Beige Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 70.06, %H: 6.20, %N: 7.22
MS	Conforms to Structure	Conforms
HPLC Purity	>95%	99.13%

Additional Information: NA

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
Eric Beaton	Neha Khanna	Clarissa Santos	1/29/2019	1/27/2029