



CERTIFICATE OF ANALYSIS

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1. Identification

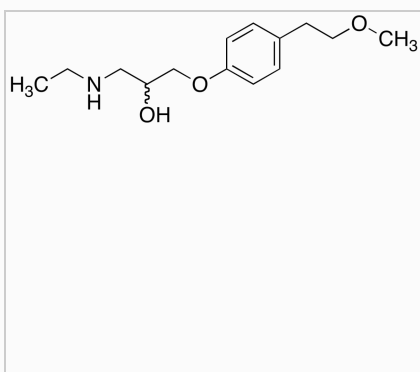
Catalogue Number: D292068

CAS Number: 109632-08-8

Product: C-Desmethyl Metoprolol

Synonym: 1-(Ethylamino)-3-[4-(2-methoxyethyl)phenoxy]-2-propanol; H 173/09; USP Metoprolol Related Compound A; Metoprolol Ep Impurity A

Structure:



Molecular Formula:

C₁₄H₂₃NO₃

Molecular weight:

253.34

Source of Product:

Synthetic

Solubility:

Chloroform (Slightly),
Methanol (Slightly)

Lot Number: 5-RUS-66-1

Purity: 97%

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

Storage Condition: 4°C

2. Warning

Warning 1: Not Determined

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	White Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 67.22, %H: 9.57, %N: 5.64
MS	Conforms to Structure	Conforms
HPLC Purity	>95%	98.24% (210 nm)

Additional Information:

TLC Conditions: SiO₂; Dichloromethane : Methanol : Ammonium Hydroxide = 8 : 2 : 0.2; Visualized with UV and AMCS; Single Spot, R_f = 0.60. Elemental Analysis: (Theoretical) %C: 66.37, %H: 9.15, %N: 5.53

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
Neha Khanna	Eric Beaton	My Nguyen	9/10/2019	9/8/2029