

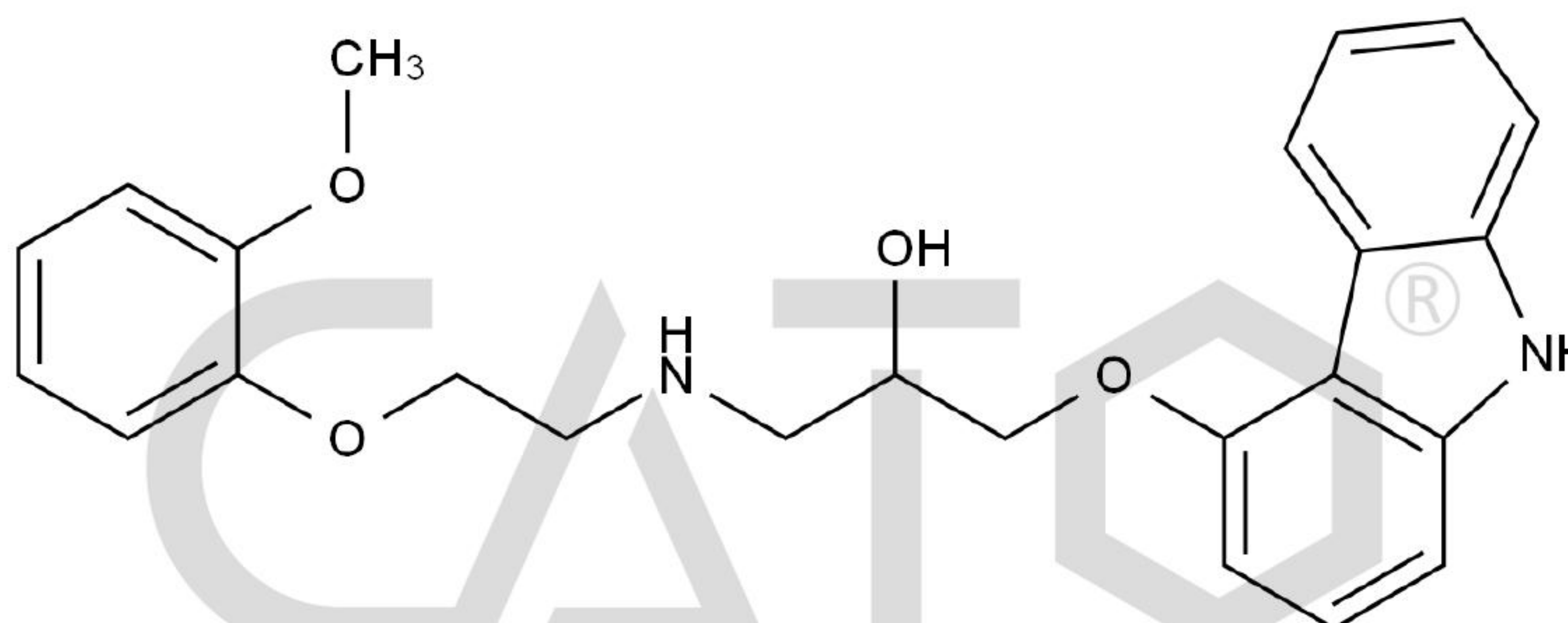
Certificate of Analysis

Reference Material & Standard

Product Name:	Carvedilol	Catalogue Number:	CCAD300718
Synonyms:	N/A	Lot Number:	0415-RH-0004
CAS Number:	72956-09-3	Expiry Date:	Apr 14, 2031
Molecular Formula:	C ₂₄ H ₂₆ N ₂ O ₄	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	406.47	Shipping Condition:	Shipping at Room Temperature
Solubility:	DMSO	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.747%
Water Content	Karl Fischer	0.2156%
Assay		99.5%
Uncertainty		±0.2%

Comment:

1. The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content}) * \text{Purity HPLC (\%)} / 100\%$$

Water Content is considered as absolute effect, HPLC purity is considered as relative effect.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Nice

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Apr 15, 2026

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