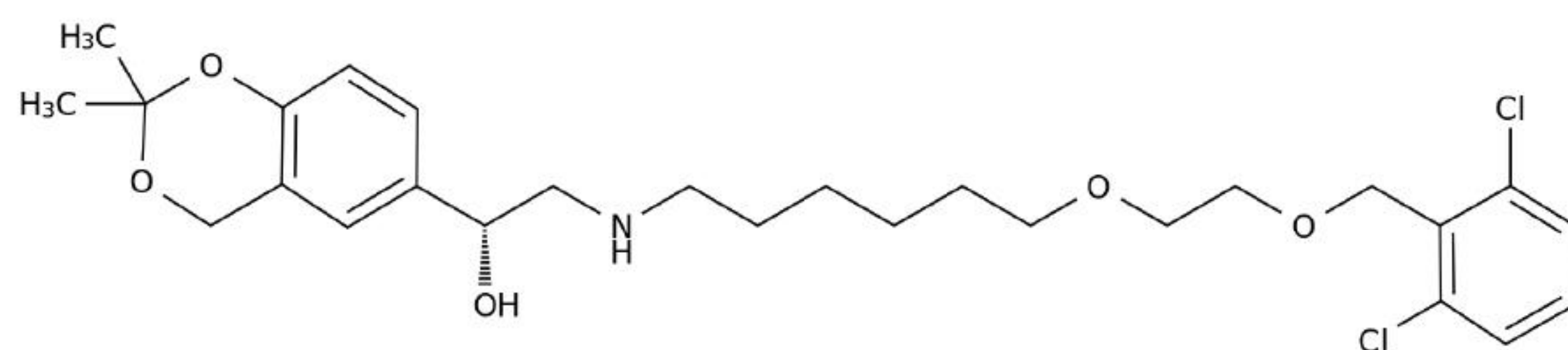


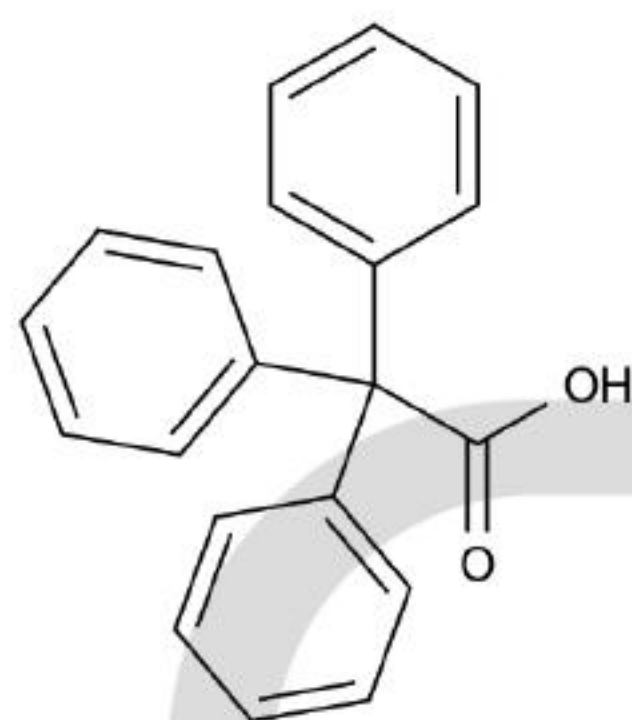
Certificate of Analysis

Reference Material

Product Name:	Vilanterol Impurity 26	Catalogue Number:	C4X-193526
Chemical Name:	N/A	Lot Number:	0516-RD-0029
CAS Number:	N/A	Expiry Date:	May 13, 2024
Molecular Formula:	C ₂₇ H ₃₇ Cl ₂ NO ₅ C ₂₀ H ₁₆ O ₂	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	526.49 288.34		



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White to Off-White Solid
Identification	LCMS&IR&HNMR	Confirmed
Purity	HPLC	99.7075%
Water Content	Karl Fischer	0.1%
Residual Solvents	NMR	Not detected in NMR
Optical Rotation		[α] _D ^{20.0} (c=0.47, CH ₃ OH): -12.7°
Assay		99.6%

Comment:

The calculation of the 100% method follows the formula:

Assay (%) = (100% - Water Content - Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Hin Lam

Reviewed by:

Cady

Aporoved by General manager:

David

Date: May 13, 2021

Date: May 17, 2022

Date: May 17, 2022

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