

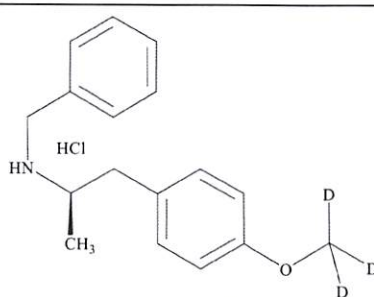
Certificate of Analysis

Certificate No.: 20241129005

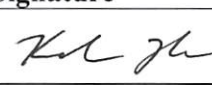

Date: November 29, 2024

Retest date: November 26, 2027

Compound Name: (R)-Formoterol Impurity 30-d ₃ HCl	
Synonyms:	(R)-N-benzyl-1-(4-(methoxy-d ₃)phenyl)propan-2-amine, hydrochloride (1:1)
TLC Catalogue Number:	F-11108
CAS Number:	1199228-78-8 (non-labelled)
Molecular Weight:	258.38 36.46
Molecular Formula:	C ₁₇ H ₁₈ D ₃ NO · HCl
Source:	TLC Pharmaceutical Standards
Source Lot No.:	6624-028A1
Storage Conditions:	Store at 2-8 °C
Solubility:	Methanol, DMSO, DMF, Ethanol



Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	100.0%
Impurity (HPLC)	N/A	
Purity (Chiral HPLC)	Not less than 98.0%	100.0%
Isotopic Enrichment	Not less than 98.0%	99.0%
Water Content (KF)	N/A	0.0%
Optical Rotation	N/A	$[\alpha]_D^{25.0}(c=0.47, CH_3OH): -16.8^\circ$
Residual Solvents (NMR)	0.3% methanol	
Assay (%)	Not less than 90.0%	99.7%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		12/02/2024
Approved by:	Quality Assurance		12/02/2024

Attachments: HPLC, IR, MS and NMR spectra.