

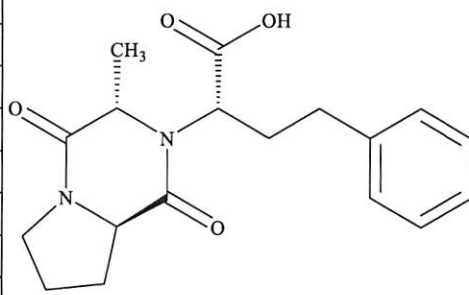
Certificate of Analysis

Certificate No.: **20260319014**


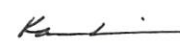
Date: March 19, 2026

Retest date: March 18, 2029

Compound Name: Enalapril Impurity 15	
Synonyms:	(S)-2-((3S,8aR)-3-methyl-1,4-dioxohexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl)-4-phenylbutanoic acid
TLC Catalogue Number:	E-0243
CAS Number:	219677-80-2
Alternate CAS Number:	N/A
Molecular Weight:	330.38
Molecular Formula:	C ₁₈ H ₂₂ N ₂ O ₄
Source:	TLC Pharmaceutical Standards
Source Lot No.:	5228-007A4
Storage Conditions:	Store at 2-8 °C
Solubility:	Methanol, DMSO, 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%	98.4%
Impurity (HPLC)	RT 8.07, 0.62%; RT 10.69, 0.27%; RT 21.41, 0.14%	
Purity (Chiral HPLC)	Not less than 98.0%	100.0%
Water Content (KF)	N/A	0.5%
Optical Rotation	N/A	$[\alpha]_D^{25.0}(c=0.37, CH_3OH): +68.1^\circ$
Residual Solvents (NMR)	1.1% ethanol	
Assay (%)	Not less than 90.0%	96.8%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		03/19/2026
Approved by:	Quality Assurance		03/19/2026

Attachments: Peak Attribution Table, Assay Calculation, HPLC, IR, MS and NMR spectra.