

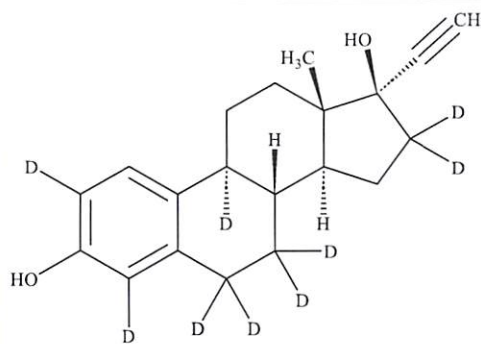
Certificate of Analysis

Certificate No.: **20250813004**



Date: August 13, 2025

Retest date: August 5, 2028

Compound Name: Ethinylestradiol-d ₉	
Synonyms:	(8R,9S,13S,14S,17R)-17-ethynyl-13-methyl-7,8,9,11,12,13,14,15,16,17-decahydro-6H-cyclopenta[<i>a</i>]phenanthrene-2,4,6,6,7,7,9,16,16-d ₉ -3,17-diol
TLC Catalogue Number:	E-4611
CAS Number:	N/A
Alternate CAS Number:	57-63-6 (non-labelled)
Molecular Weight:	305.46
Molecular Formula:	C ₂₀ H ₁₅ D ₉ O ₂
Source:	TLC Pharmaceutical Standards
Source Lot No.:	6959-085A11
Storage Conditions:	Store at 2-8 °C
Solubility:	Methanol, DMSO, DMF



Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	98.4%
Impurity (HPLC)	RT 14.05, 1.63%	
Isotopic Enrichment	Not less than 95.0%	97.8%
Water Content (KF)	N/A	2.9%
Optical Rotation	N/A	$[\alpha]_D^{25.0}(c=0.61, \text{CHCl}_3): +1.4^\circ$
Residual Solvents (NMR)	0.4% ethyl acetate and 0.1% <i>n</i> -hexane	
Assay (%)	Not less than 90.0%	95.1%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		08/13/2025
Approved by:	Quality Assurance		08/13/2025

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