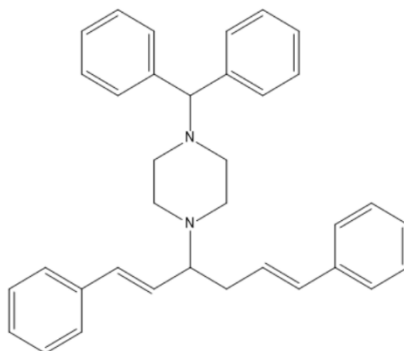


CERTIFICATE OF ANALYSIS

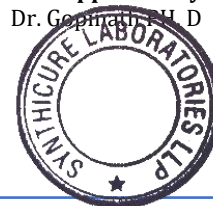
Product Name	Cinnarizine Impurity D		
Synonyms	1-(Diphenylmethyl)-4-[4-phenyl-1-(2-phenylethenyl)-3-buten-1-yl]piperazine		
CAS No	1199751-98-8		
Product code	SYI0056	Batch No	LCIBF0506
Molecular Formula	C35H36N2	Molecular Weight	484.67
Mfg. Date	Mar-26	Expiry Date	Apr-27
Storage Conditions	Store at 2 to 8 °C temperature, tightly closed container		

Test	Specification	Results
Description	Off-white solid	Off-white solid
Solubility	Soluble in MDC and DMF	Complies
Identification by Mass	Confirms to the structure	Confirms to the structure
Identification by H¹ NMR	Confirms to the structure	Confirms to the structure
Purity by HPLC	99.50%	99.99%

Remarks: Based on NMR, MASS spectra and other Analytical data, the material confirms to the above structure.



Approved by
Dr. Gopinath H. D



Computer Generated document, Does not require any Signature.

Analytical HPLC Report

SAMPLE INFORMATION

Sample Name:	LCIBF0506	Sample Set Name:	17032025 HPLC2 MORNING
Sample Type:	Unknown	Acq. Method Set:	HPLC PURITY 24 MIN_NEW
Vial:	17	Processing Method:	Default
Injection #:	1	Channel Name:	248.0nm
Injection Volume:	2.00 ul	Proc. Chnl. Descr.:	PDA 248.0 nm
Run Time:	24.0 Minutes	Acquired By:	Analyst
INS ID :	SA-AD-INS-021		
Date Acquired:	3/17/2025 9:18:51 PM IST		
Date Processed:	3/18/2025 6:13:29 AM IST		

METHOD INFORMATION:

BUFFER:

MP A:0.1% TFA IN WATER

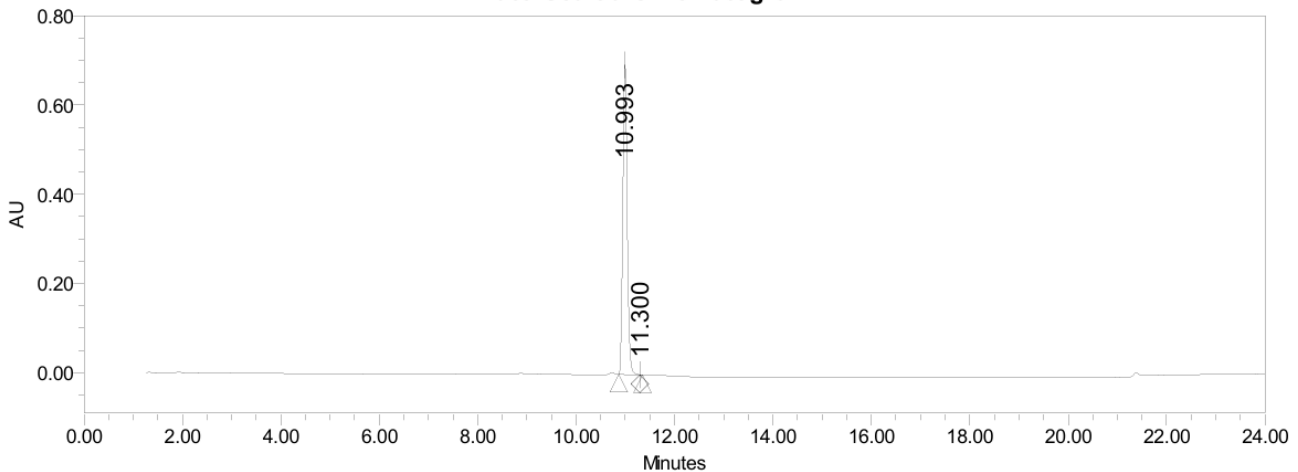
MP B: ACN :WATER (90:10)V/V

COLUMN:X-TERRA MS C18(150MM *4.6*5um)

GRADIENT PRO:0/10,3/10,10/100,19/100,19.5/10,24/10

FLOW:1.0ML/MIN

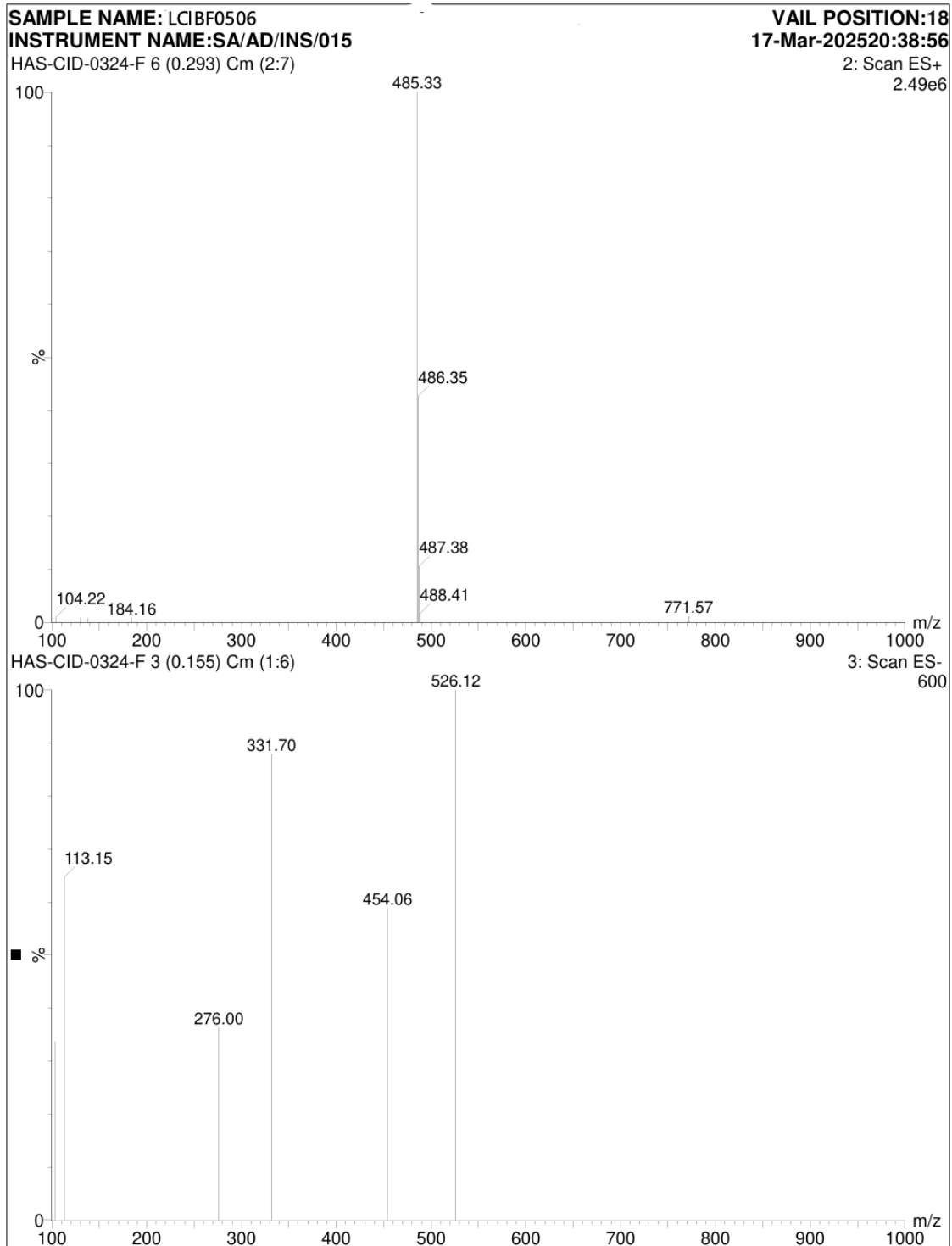
Auto-Scaled Chromatogram


Peak Results

Name	RT	Area	% Area
1	10.993	4391336	99.99
2	11.300	604	0.01

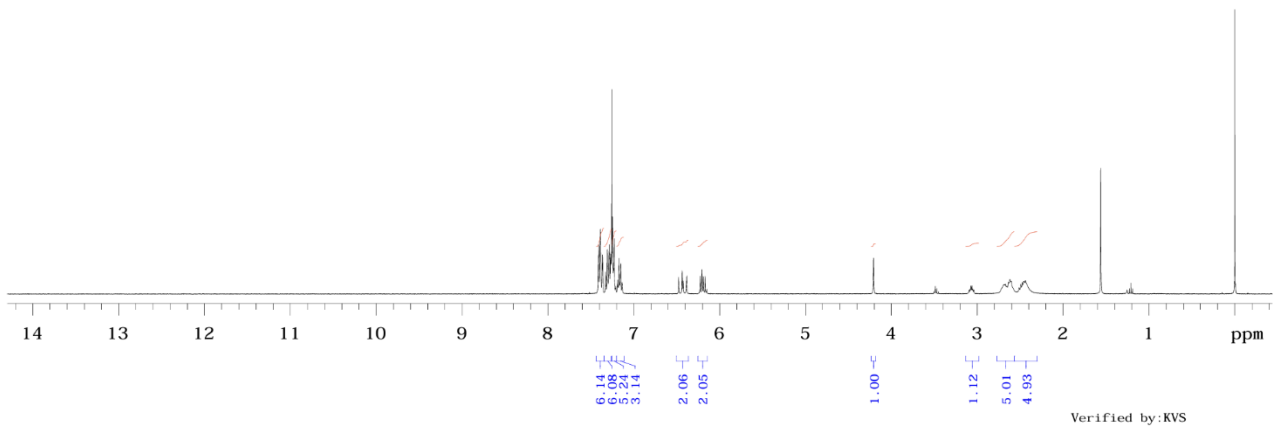


Identification by Mass spectrometry (MS)

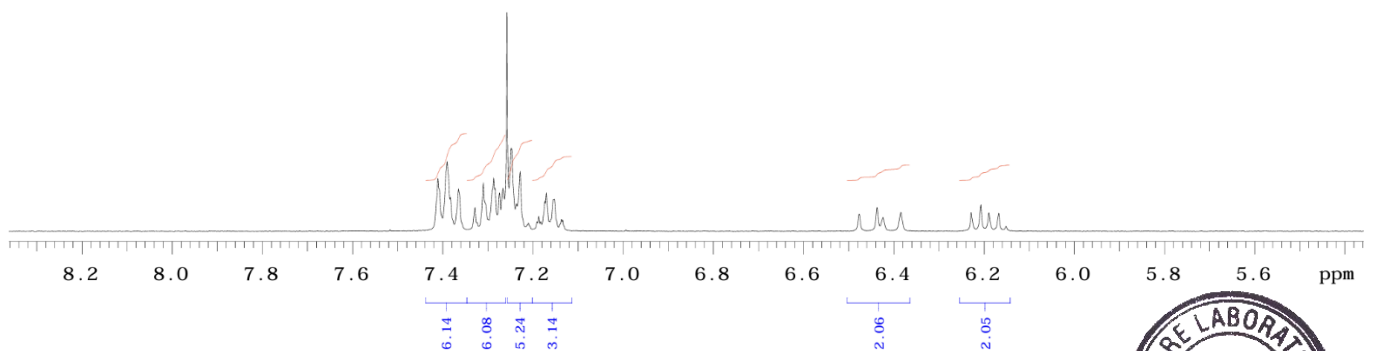
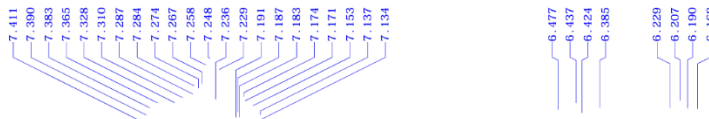


Identification by NMR: H1NMR

Sample Code: LCIBF0506

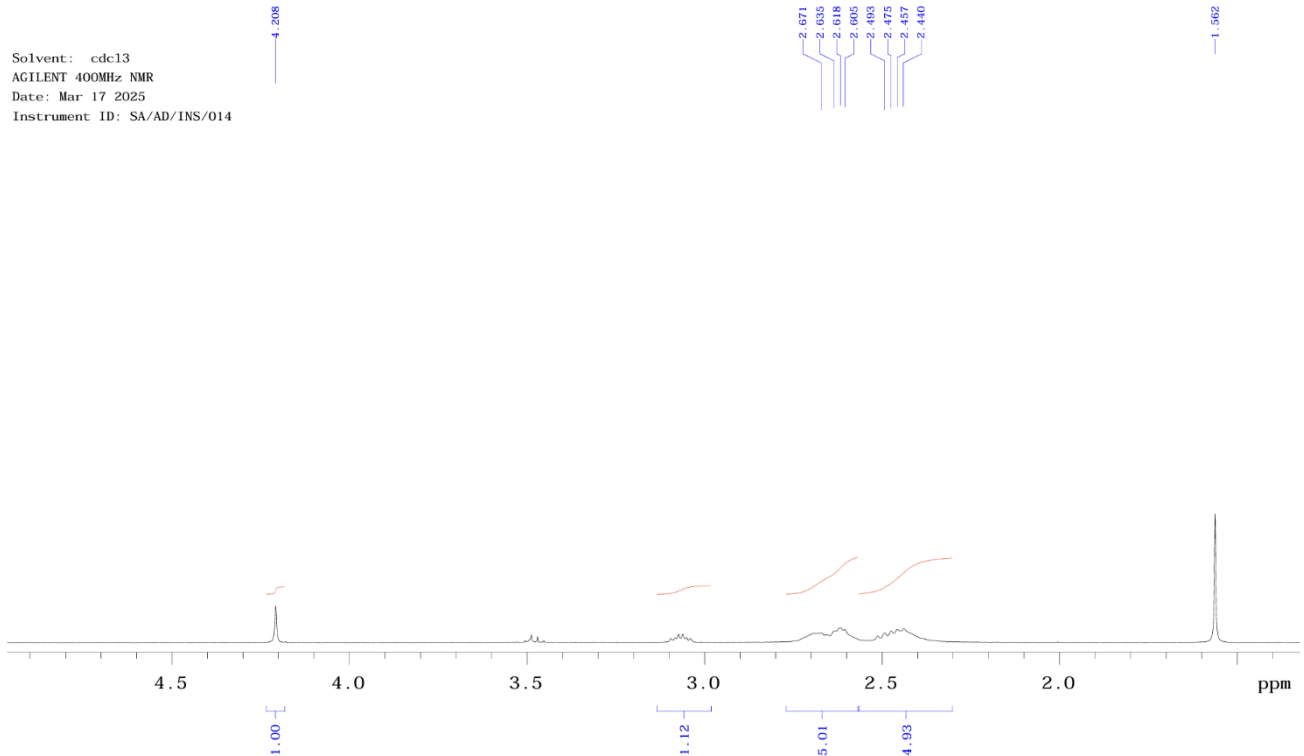
 Solvent: cdc13
 AGILENT 400MHz NMR
 Date: Mar 17 2025
 Instrument ID: SA/AD/INS/014


Sample Code: LCIBF0506

 Solvent: cdc13
 AGILENT 400MHz NMR
 Date: Mar 17 2025
 Instrument ID: SA/AD/INS/014


Identification by NMR: H1NMR

Sample Code: LCIBF0506

 Solvent: cdc13
 AGILENT 400MHz NMR
 Date: Mar 17 2025
 Instrument ID: SA/AD/INS/014


Verified by:KVS

exp3 PROTON

SAMPLE				PRESATURATION				INDEX	FREQUENCY	PPM	HEIGHT	INDEX	FREQUENCY	PPM	HEIGHT
date	Mar 17 2025	satmode	n				1	2963.0	7.411	10.4	33	1053.4	2.635	2.5	
solvent	cdc13	wet	n				2	2954.9	7.390	13.7	34	1046.6	2.618	3.1	
file	/home/spark-d-	SPECIAL					3	2952.0	7.383	6.7	35	1041.4	2.605	2.7	
d2/data/2025/Mar/H-	temp	not used					4	2944.8	7.365	8.3	36	996.9	2.493	2.0	
AS-CID-0324-F_2025-	gain	28					5	2930.1	7.328	4.7	37	989.6	2.475	2.4	
0317_01/HAS-CID-03-	spin	20					6	2922.8	7.310	9.4	38	982.4	2.457	2.7	
24-F_PROTON_202503-	hst	0.008					7	2913.6	7.287	10.4	39	975.6	2.440	2.8	
17_01.fid	pw90	12.700					8	2912.3	7.284	8.5	40	624.6	1.562	26.6	
ACQUISITION	alfa	10.000					9	2908.4	7.274	7.6	41	483.4	1.209	2.3	
sw	7183.9	FLAGS					10	2905.5	7.267	8.5	42	3.1	0.008	2.7	
at	4.000	il	n				11	2902.0	7.258	43.2	43	0.0	0.000	60.1	
np	57472	in	n				12	2898.1	7.248	16.4	44	-3.5	-0.009	2.1	
fb	4000	dp	y				13	2893.3	7.236	5.4					
bs	2	hs	nn				14	2890.2	7.229	11.7					
d1	1.000	PROCESSING					15	2875.1	7.191	1.9					
nt	128	lb	0.50				16	2873.5	7.187	2.9					
ct	4	fn	not used				17	2872.0	7.183	1.9					
TRANSMITTER		DISPLAY					18	2868.3	7.174	5.9					
tn	H1	sp	-787.5				19	2866.9	7.171	7.5					
sfrq	399.827	wp	7183.7				20	2859.9	7.153	6.4					
tof	799.6	rfl	787.7				21	2853.6	7.137	2.4					
tpwr	60	rfp	0				22	2852.5	7.134	2.2					
pw	6.350	rp	-121.1				23	2589.6	6.477	3.4					
DECOUPLER		lp	0				24	2573.8	6.437	4.7					
dn	C13	PLOT					25	2568.6	6.424	2.7					
dof	0	wc	268				26	2552.8	6.385	3.7					
dm	nnn	sc	0				27	2490.5	6.229	3.7					
decwave	W40_ATB-89-	vs	686				28	2481.7	6.207	5.2					
dpwr	85	th	2				29	2474.7	6.190	3.6					
dmf	38	ai	ph				30	2466.0	6.168	3.5					
	29412						31	1682.4	4.208	7.6					
							32	1068.1	2.671	2.1					

