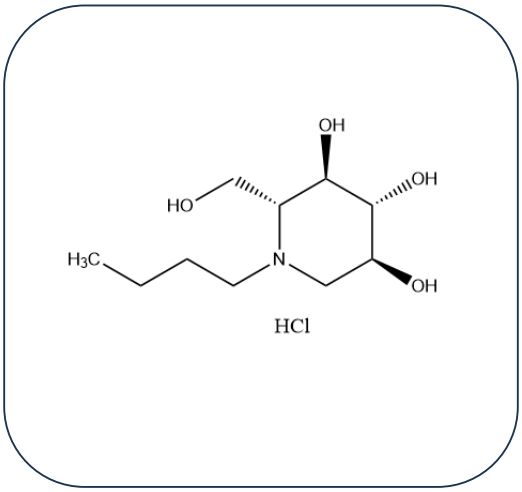
KAARIS LABS
Delivering Scientific Excellence

Certificate of Analysis

Catalogue Number
KL-01-00343

Lot Number
KLP0019AH01

Structure



Product Name
Miglustat hydrochloride

Synonyms
(2R,3R,4R,5S)-1-Butyl-2-(hydroxymethyl) piperidine-3,4,5-triol hydrochloride

CAS Number
210110-90-0

Molecular Formula
$C_{10}H_{21}NO_4$: HCl

Molecular Weight
219.3 :36.5 g/mol

Mfg. Date
30-08-2025

Re-Test Date
29-08-2028

Shipping Condition
All Product are stable to be shipped at room temperature, unless otherwise specified.

Long Term Storage Conditions
2°C ~ 8°C Protected from light and Sealed

Analytical Information

Test	Specifications	Results
Appearance	White to Off-White Solid (Hygroscopic)	Off-White Solid (Hygroscopic)
Solubility	Soluble in Methanol, Water	Methanol (Slightly), Water (Slightly)
Purity by HPLC	Not less than 90.00%	99.18%
Identification by ^{1}HNMR	Conforms to structure	Complies
Identification by Mass	Conforms Molecular Weight	Complies

KAARIS RESEARCH LABS PRIVATE LIMITED HYD

Note: Use for research & analytical purpose only. Not for human consumption

Approved By B Kishore

Kaaris Research Labs Private Limited, Shed No. 2B at Plot No.22, Road No. 17, IDA, Nacharam, Hyderabad-500 076
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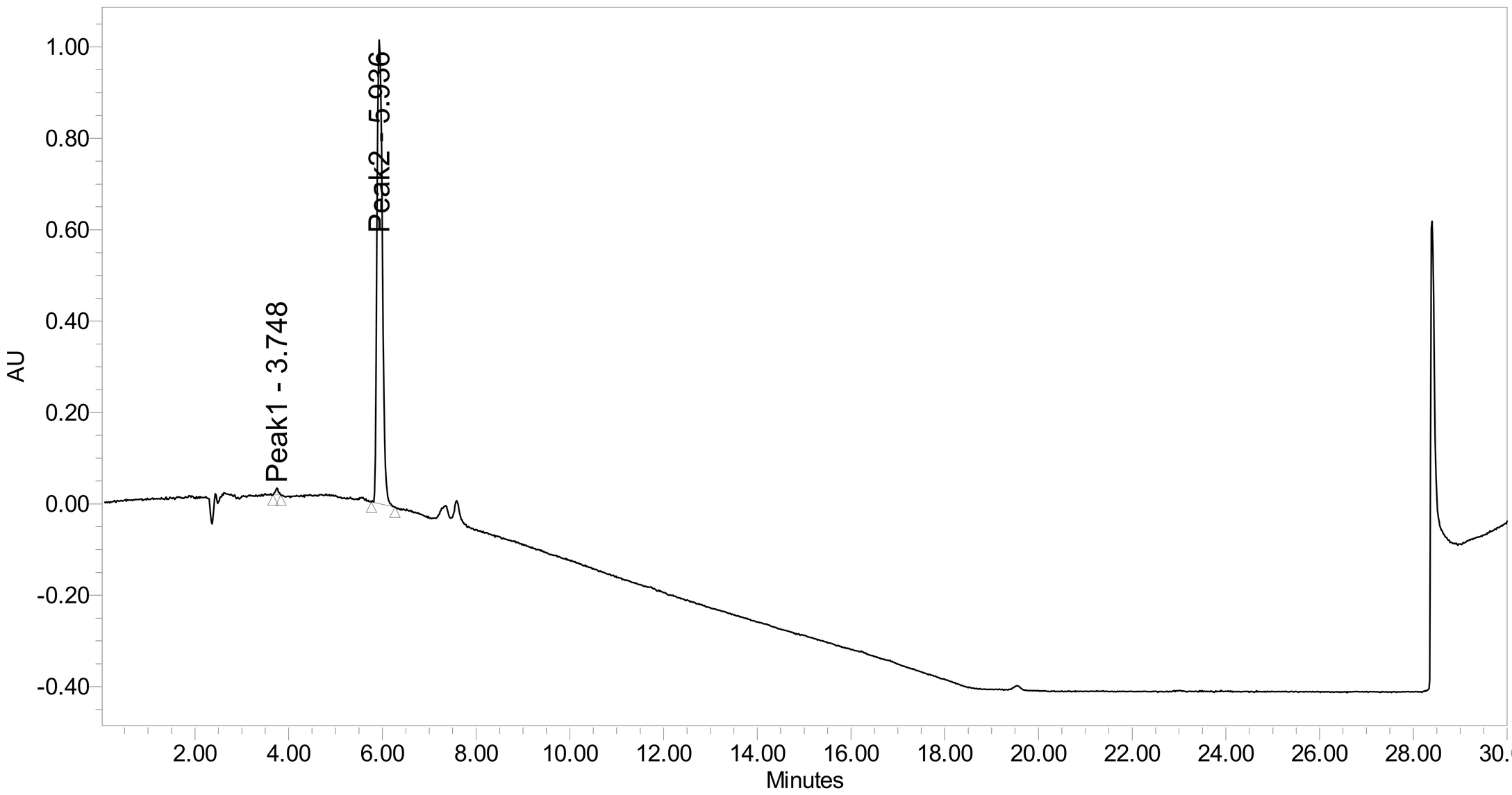
SAMPLE INFORMATION

Sample Name:	KLP0019AH01	Acquired By:	System
Sample Type:	Unknown	Sample Set Name:	30_08_2025
Vial:	43	Acq. Method Set:	GEN_METHOD_06ml
Injection #:	1	Processing Method:	MGS_
Injection Volume:	10.00 ul	Channel Name:	207.0nm
Run Time:	30.0 Minutes	Proc. Chnl. Descr.:	PDA 207.0 nm
Date Acquired:	8/30/2025 7:33:09 PM IST		
Date Processed:	9/1/2025 2:22:03 PM IST		

MP-A:- 10MM AMMONIUM ACETATE in 1000ml of water
MP-B:-100%ACN
TIME:-%B:--0/10,15/90,25/90,25.1/10,30/10
COLUM:---CRED CHROM C18 5um,,4.6X150mm
FLOW RATE:-0.6ml/min
RUN TIME:-30min



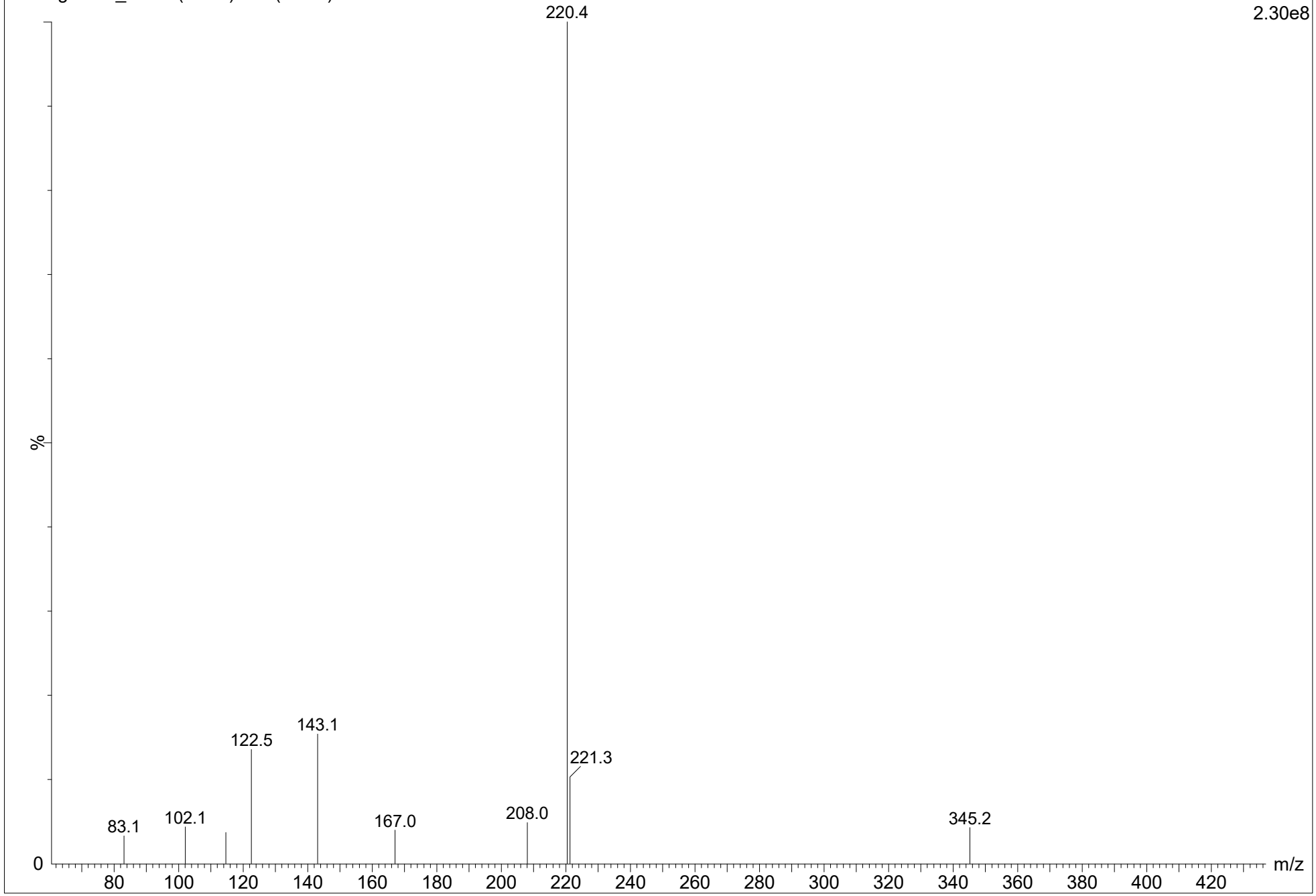
	Peak Name	RT	Area	% Area	Height
1	Peak1	3.748	66807	0.82	14262
2	Peak2	5.936	8068174	99.18	1011260

KLP0019AH01
037289

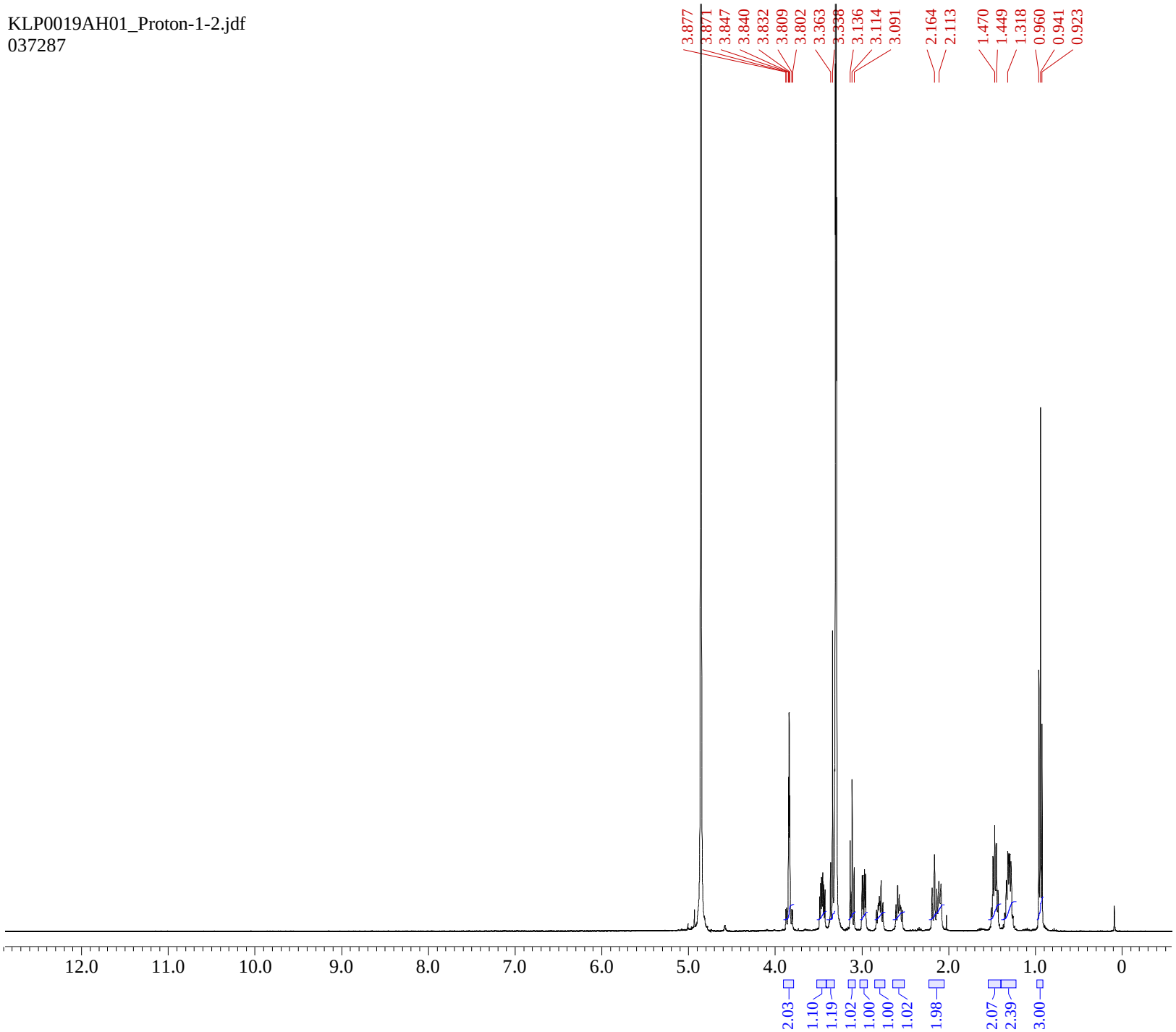
28-Aug-2025
15:18:26
ABNL10\1042

28-Aug-2025_12 27 (0.911) Cm (24:27)

1: Scan ES+
2.30e8



KLP0019AH01_Proton-1-2.jdf
037287

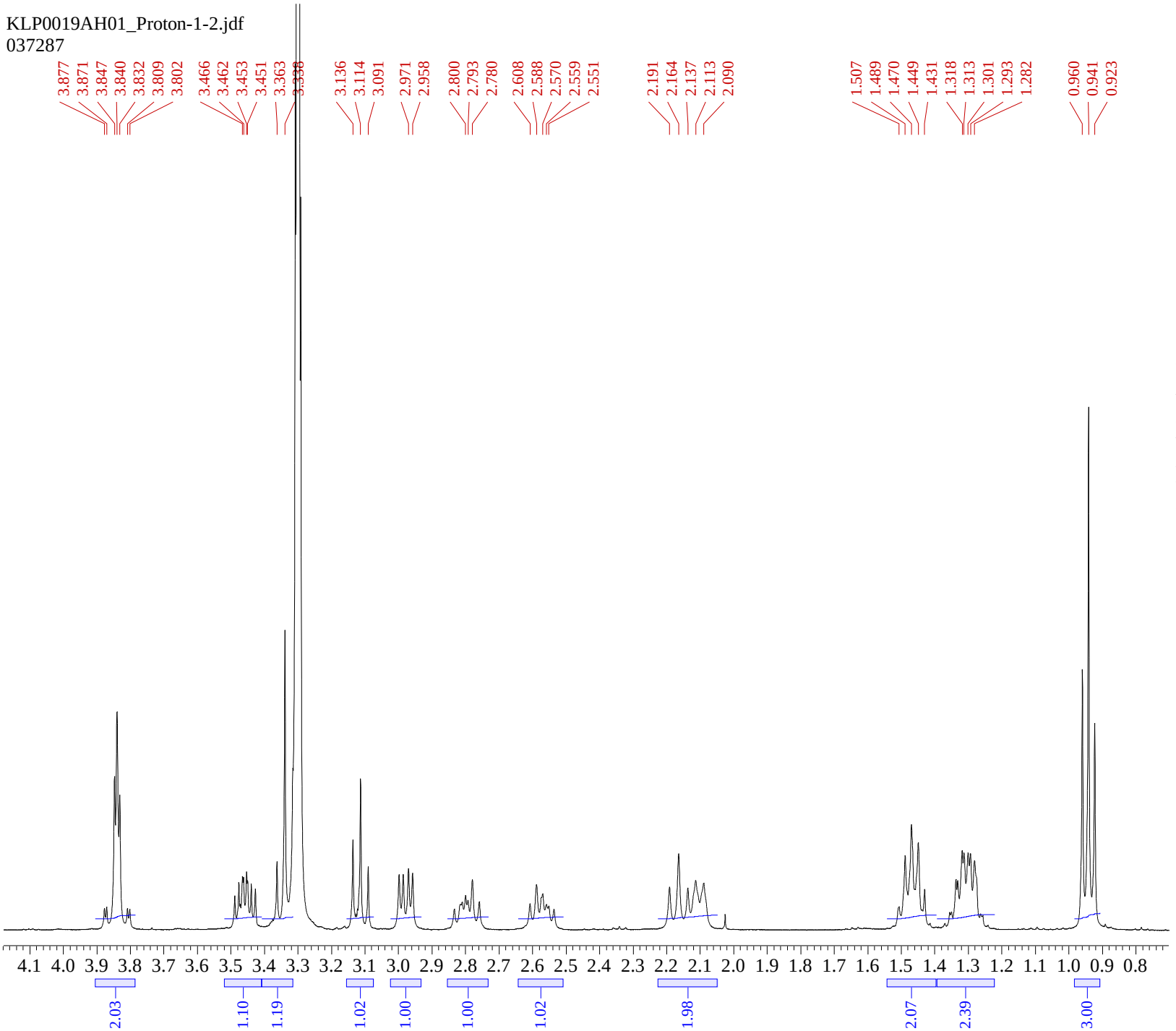


---- PROCESSING PARAMETERS ----
sexp(0.27483[Hz], 0.0[s])
trapezoid(0[%], 0[%], 80[%], 100[%])
zerofill(2, TRUE)
fft(1, TRUE, TRUE)
machinephase
ppm
auto_reference(5[%], TRUE)
thresh(0.15175[%], 1)

Derived from: MGS-IHRS_Proton-1-1.jdf

Creation_Time	= 28-AUG-2025 18:00:31
Instrument	- NMR-400MHz (JEOL)
Spectrometer	= NM-70010S4L1
Instrument id	- ABNL/QC/NMR-01
Author	= 1033
Reviewed by	- RMG
Solvent	= METHANOL-D4
Acquisition Parameters	
Experiment	= proton.jxp
X_Offset	= 7[ppm]
X_Sweep	= 9.00576369[kHz]
Relaxation_Delay	= 2[s]
Scans	= 64

KLP0019AH01_Proton-1-2.jdf
037287



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sexp(0.27483[Hz], 0.0[s])
trapezoid(0[%], 0[%], 80[%], 100[%])
zerofill(2, TRUE)
fft(1, TRUE, TRUE)
machinephase
ppm
auto_reference(5[%], TRUE)
thresh(0.15175[%], 1)

Derived from: MGS-IHRS_Proton-1-1.jdf

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Author = 1033
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Acquisition Parameters
Experiment = proton.jxp
X_Offset = 7[ppm]
X_Sweep = 9.00576369[kHz]
Relaxation_Delay = 2[s]
Scans = 64

J-Coupling Analysis Report

Path = \\ABNL-01\Share folder\NMR Raw Data\Aug-2025\28-Aug-2025\KLP0019AH01_Proton-1-2.jdf

Position	Integral	Pattern	J
3.84[ppm]	2	m	
3.46[ppm]	1	m	
3.35[ppm]	1	d	J1 = 9.619[Hz]
3.11[ppm]	1	t	J1 = 9.070[Hz]
2.98[ppm]	1	dd	J1 = 10.993[Hz], J2 = 4.947[Hz]
2.80[ppm]	1	m	
2.57[ppm]	1	m	
2.14[ppm]	2	m	
1.47[ppm]	2	m	
1.31[ppm]	2	m	
0.94[ppm]	3	t	J1 = 7.283[Hz]