

Name:	Dolutegravir Impurity H
Lot#:	GR-20-073
Test Date:	02/19/2026 (re-test date: 02/19/2031)
CAS No.:	1973402-10-6
MF:	C ₂₇ H ₂₅ F ₂ N ₃ O ₅
MW:	509.50
Appearance:	Light pink solid
Purity:	98.4% by HPLC (average of two sample preparations)
¹H-NMR:	Conforms (contains a trace of MTBE)
MS-ESI (+)	Conforms (shows peaks at m/z = 510.18 [M+H] ⁺)
Storage	Store at 0-5°C in a dry place away from direct sunlight

Approved by:

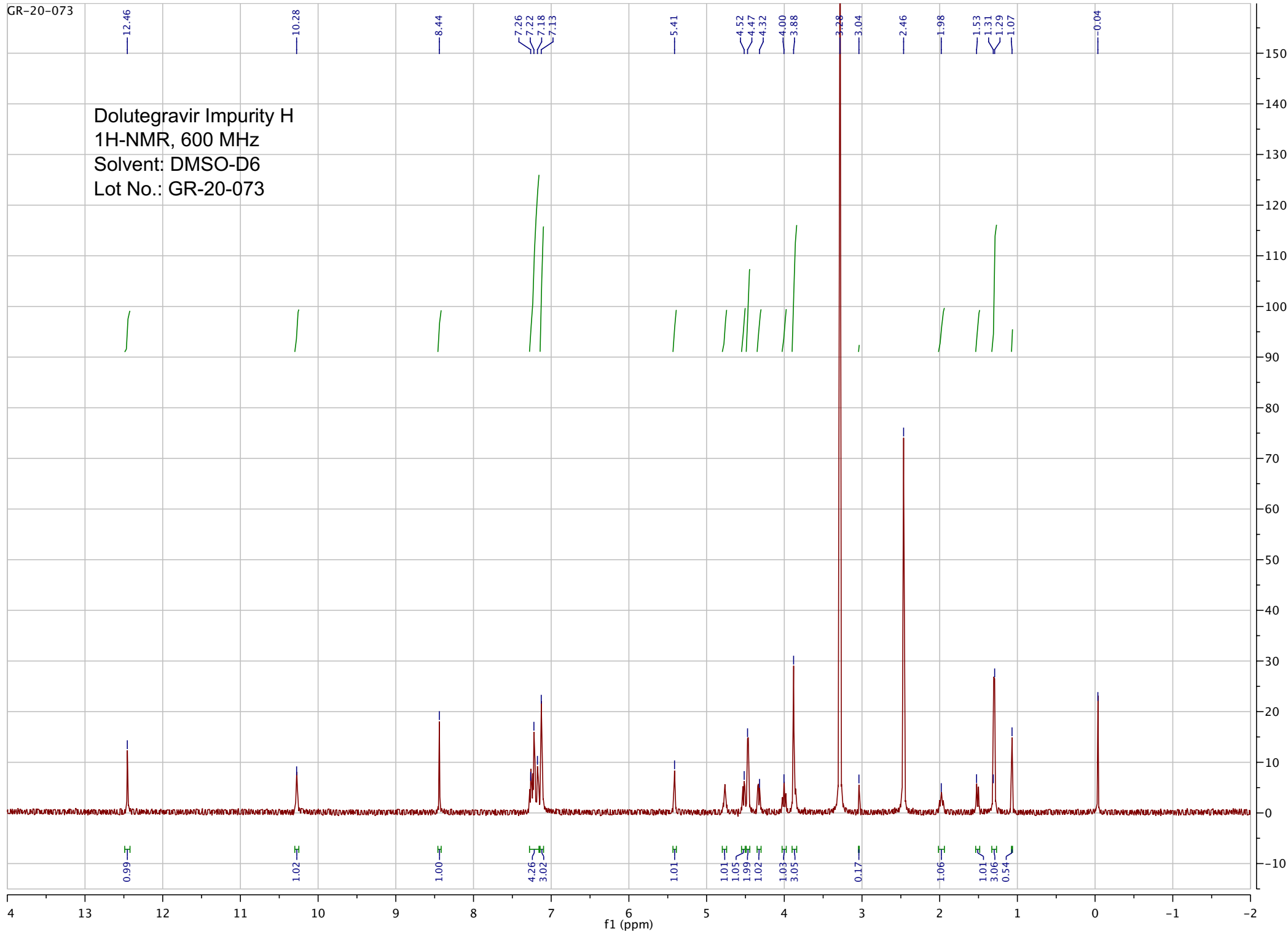
Date: 03/12/2026



Viorica Rusu, QC/QA Manager

GR-20-073

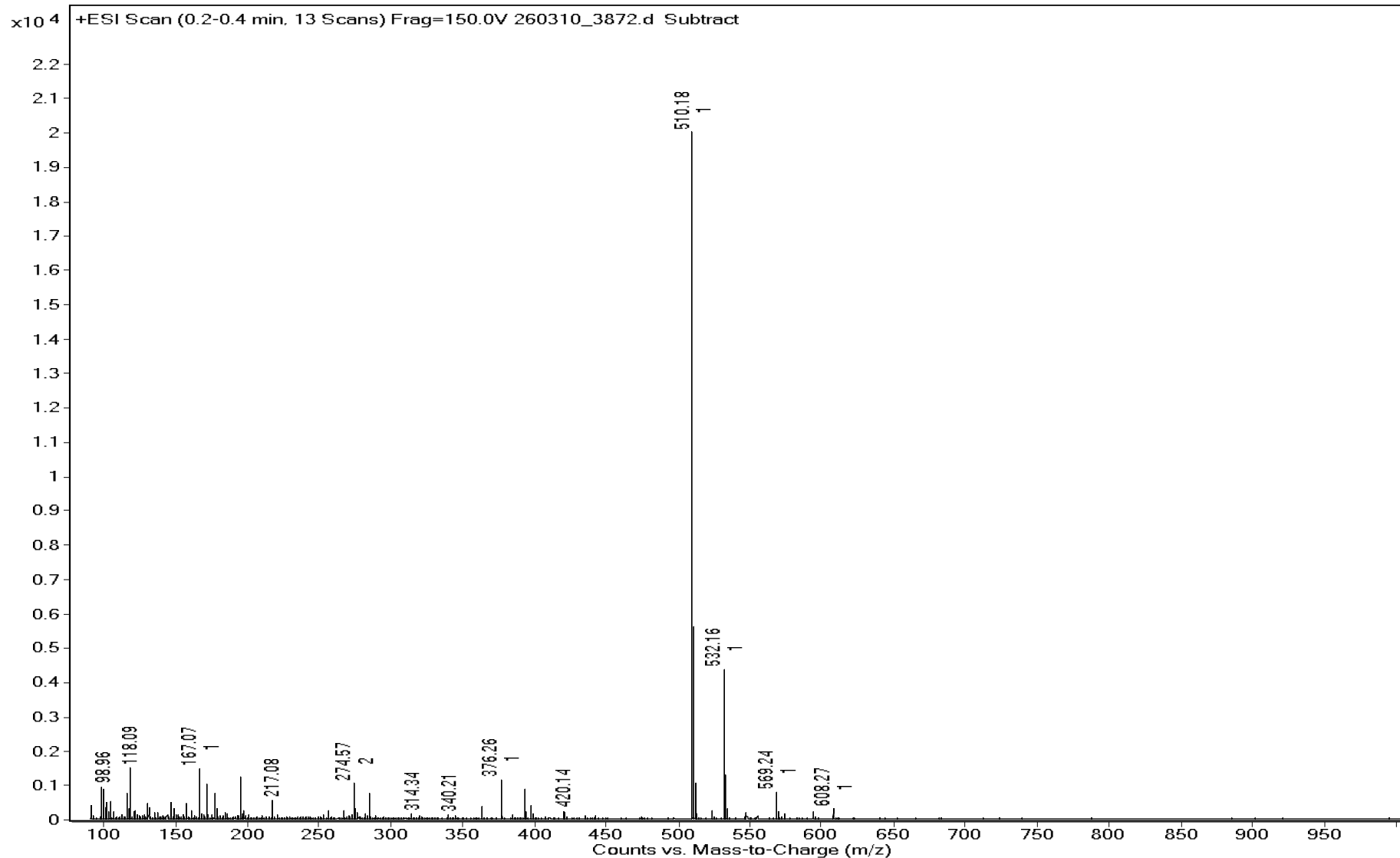
Dolutegravir Impurity H
1H-NMR, 600 MHz
Solvent: DMSO-D6
Lot No.: GR-20-073



Sample Name GR--20-073
DA Method AIMS_Accurate_Mass.m
Comment ESI+

Data File 260310_3872.d
Instrument Agilent 6538 UHD

Acq Method HRMS_AS.m
Acq Date, Time 11/03/2026 11:17:28 AM



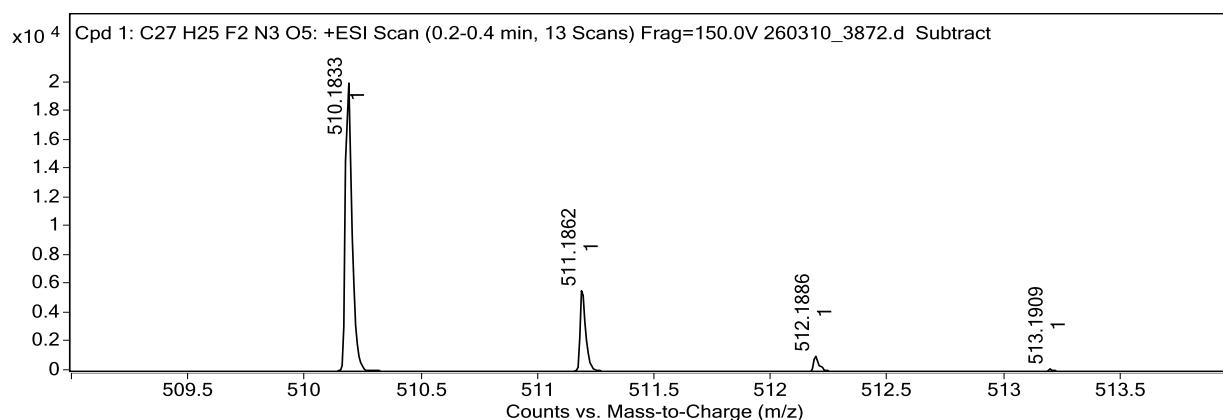
Sample Name	GR--20-073	Data File	260310_3872.d
Acq Method	HRMS_AS.m	DA Method	AIMS_Accurate_Mass.m
Instrument	Agilent 6538 UHD	Acq Date, Time	11/03/2026 11:17:28 AM
Comment	ESI+		

Target Ion Species

Ion Species	m/z	Ionic Formula
(M+H) ⁺	510.1833	C27 H26 F2 N3 O5

MFG Calculator Results

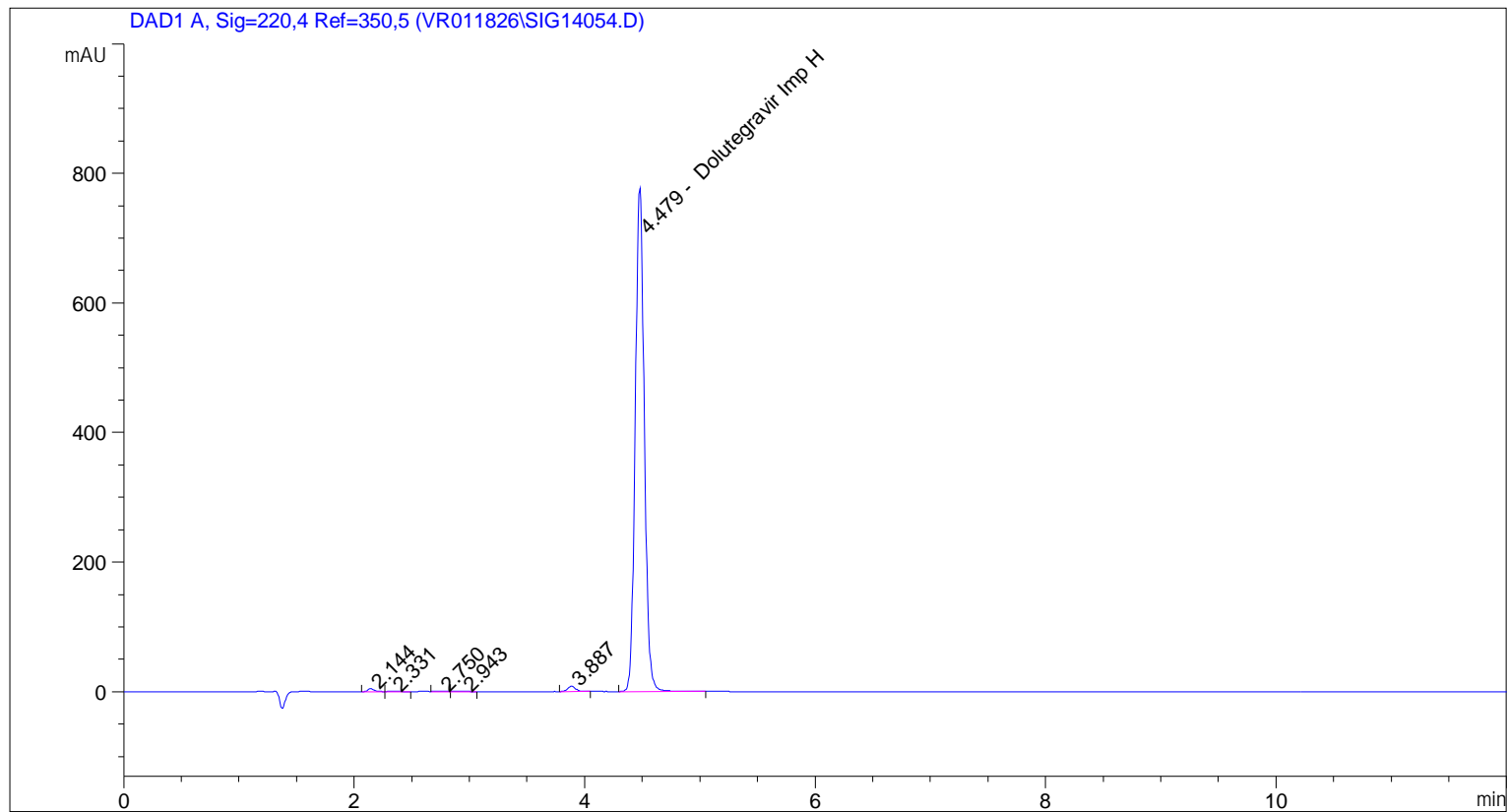
Target m/z	Ionic Formula	Calc m/z	+/- (mDa)	+/- (ppm)	DBE	MFG Score
510.1833	C27 H26 F2 N3 O5	510.1835	-0.2	-0.4	16.0	99.38
510.1833	C22 H24 N9 O6	510.1844	-1.1	-2.2	16.0	96.79
510.1833	C21 H28 N5 O10	510.1831	0.2	0.4	11.0	96.43
510.1833	C30 H25 F N3 O4	510.1824	0.9	1.8	20.0	95.97
510.1833	C31 H21 F N7	510.1837	-0.4	-0.8	25.0	93.95
510.1833	C28 H22 F2 N7 O	510.1848	-1.5	-2.9	21.0	93.27
510.1833	C18 H29 F N5 O11	510.1842	-0.9	-1.8	7.0	89.22
510.1833	C23 H22 F2 N9 O3	510.1808	2.5	4.9	17.0	88.49
510.1833	C20 H32 N O14	510.1817	1.6	3.1	6.0	88.12
510.1833	C19 H25 F N9 O7	510.1855	-2.2	-4.3	12.0	86.55



Predicted Isotope Match Table

Isotope	m/z	Calc m/z	Diff (mDa)	Abund (%)	Calc Abund (%)	+/-
1	510.1833	510.1835	-0.2	100.0	100.0	0.0
2	511.1862	511.1867	-0.5	29.5	30.8	1.3
3	512.1886	512.1894	-0.8	5.3	5.6	0.3

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Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 85
Injection Date : 2/19/2026 3:00:26 PM Inj Volume : 5.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR021926_073.M
Last changed : 2/19/2026 2:59:27 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR021926_073PM.M
Last changed : 2/19/2026 3:29:32 PM by vrusu



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Area Percent Report
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Sorted By : Signal
Calib. Data Modified : 2/19/2026 3:29:08 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=220,4 Ref=350,5

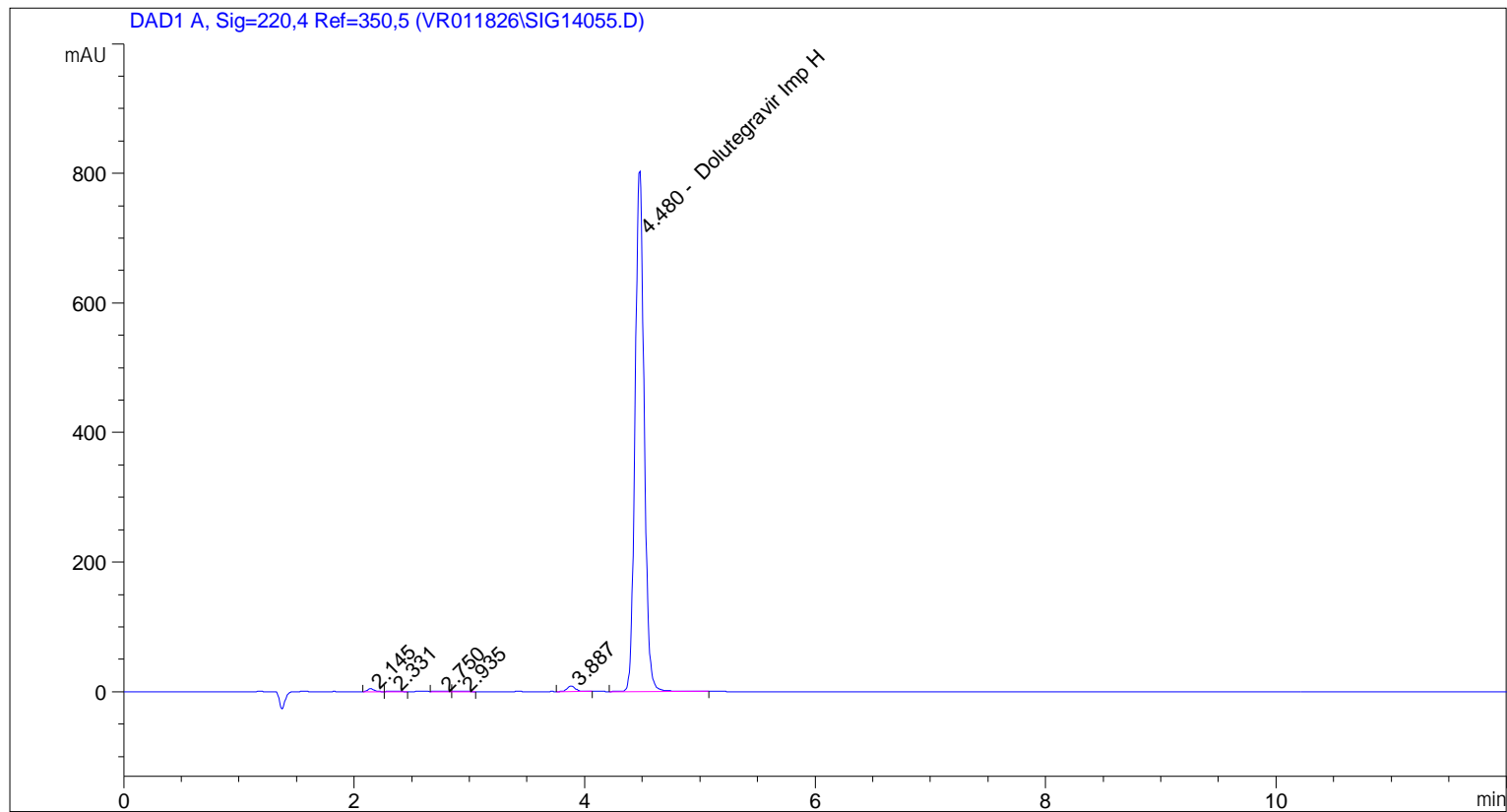
Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.144	BV	0.0587	17.80240	0.4127	?
2	2.331	VB	0.0866	6.49164	0.1505	?
3	2.750	BV	0.0692	3.61539	0.0838	?
4	2.943	VB	0.0937	4.38317	0.1016	?
5	3.887	BB	0.0755	40.77481	0.9454	?
6	4.479	BB	0.0837	4240.07080	98.3059	Dolutegravir Imp H

Totals : 4313.13821

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*** End of Report ***

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Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 86
Injection Date : 2/19/2026 3:17:04 PM Inj Volume : 5.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR021926_073.M
Last changed : 2/19/2026 3:16:04 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR021926_073PM.M
Last changed : 2/19/2026 3:29:32 PM by vrusu



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Area Percent Report
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Sorted By : Signal
Calib. Data Modified : 2/19/2026 3:29:08 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=220,4 Ref=350,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.145	BV	0.0565	17.24372	0.3858	?
2	2.331	VB	0.0828	6.50802	0.1456	?
3	2.750	BV	0.0698	3.61147	0.0808	?
4	2.935	VB	0.0904	3.70550	0.0829	?
5	3.887	BB	0.0773	42.15891	0.9433	?
6	4.480	BB	0.0837	4396.04150	98.3615	Dolutegravir Imp H

Totals : 4469.26912

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*** End of Report ***