

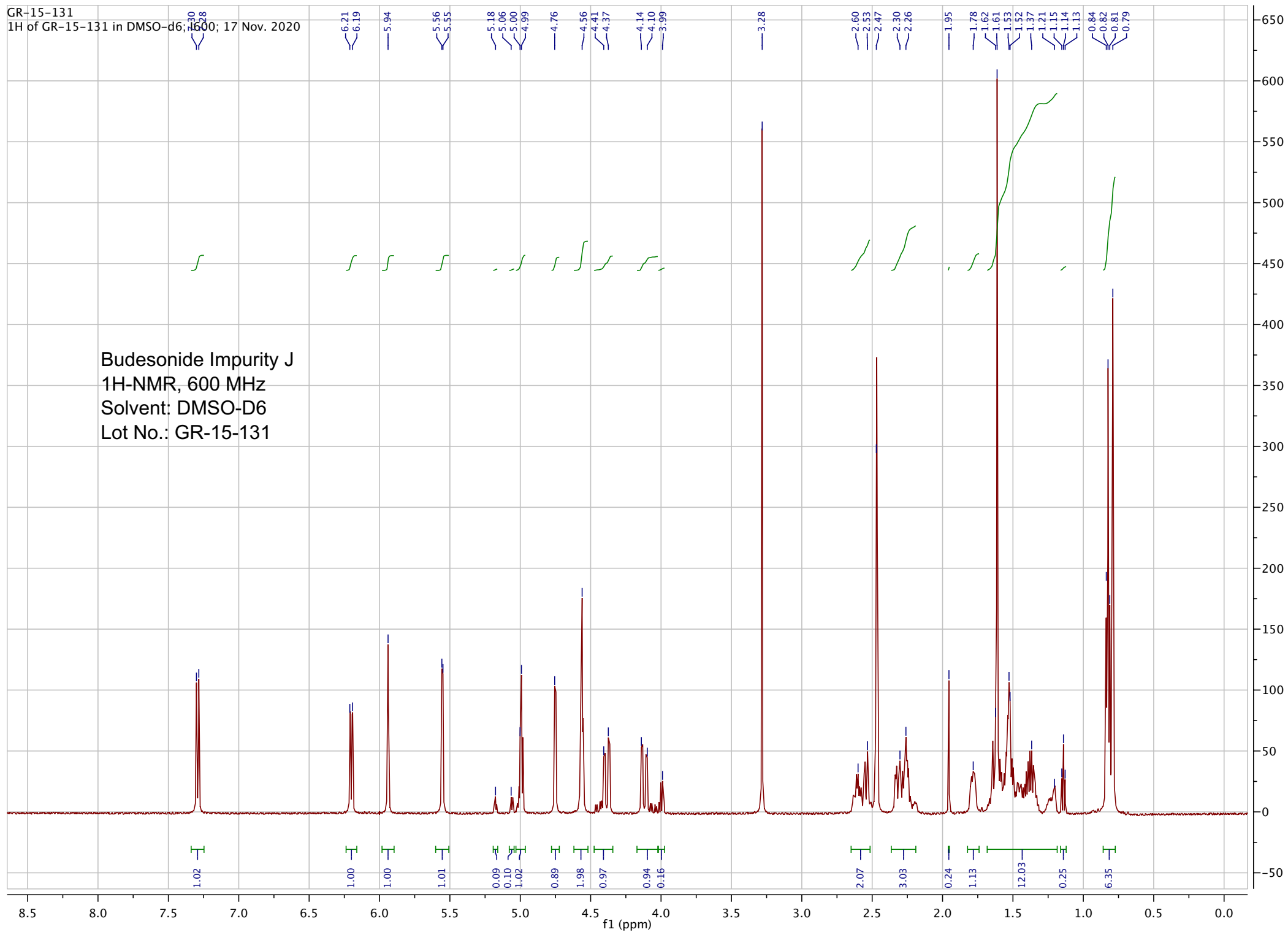
Name:	Budesonide Impurity J
Lot#:	GR-15-131
Test Date:	08/15/2025 (re-test date: 08/15/2030)
CAS No.:	313474-59-8
MF:	C ₂₅ H ₃₃ BrO ₆
MW:	509.43
Appearance:	White solid
Purity:	98.8% by HPLC (sum of two isomers; average of two sample preparations)
¹H-NMR:	Conforms (contains a trace of EtOAc)
MS-ESI (+)	Conforms (shows peaks at m/z = 509.15, 511.15 [M+H] ⁺ shows the expected isotope pattern for mono-bromo compounds)
Storage	Long term store at 0 - 5° C in a dry place away from direct sunlight

Approved by:

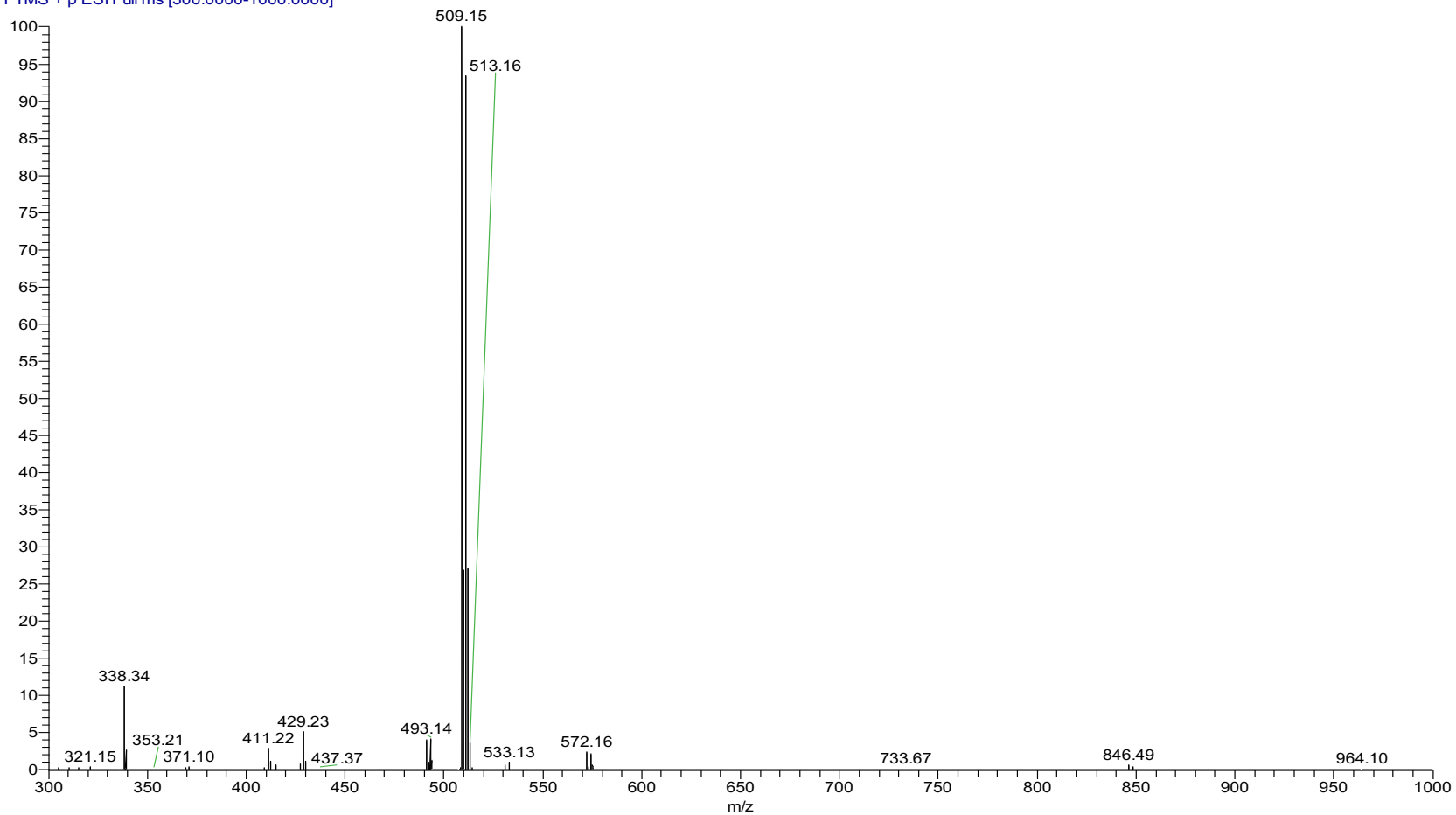
Date: 08/15/2025

Viorica Rusu, QC/QA Manager

GR-15-131
1H of GR-15-131 in DMSO-d6; 1600; 17 Nov. 2020

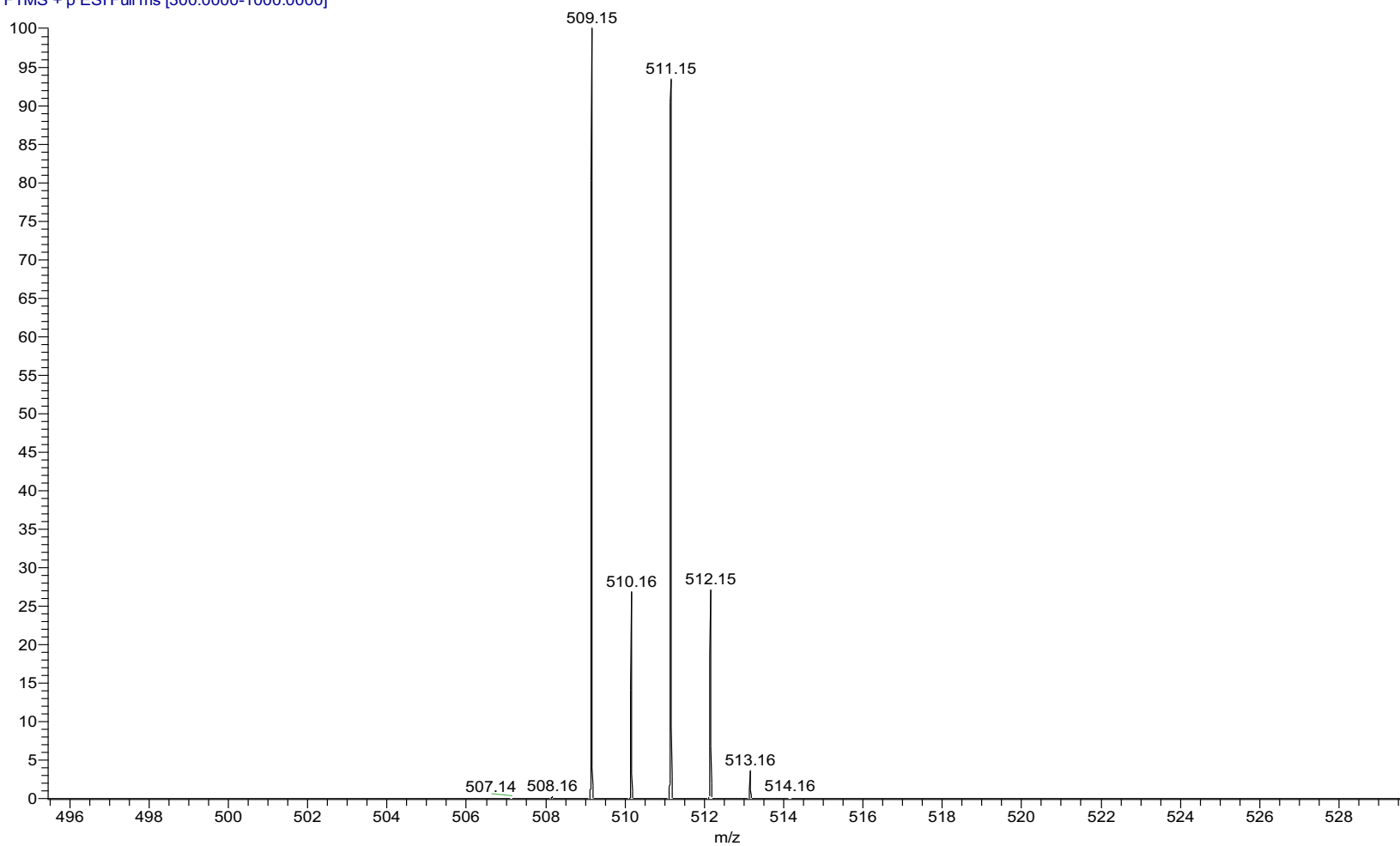


pp_2021_001_GR_15_131_1 #2047 RT: 4.60 AV: 1 NL: 4.40E7
T: FTMS + p ESI Full ms [300.0000-1000.0000]



ESI-MS spectrum for sample 2021-001, GR-15-131. Shows monoisotopic $[M+H]^+$ mass.

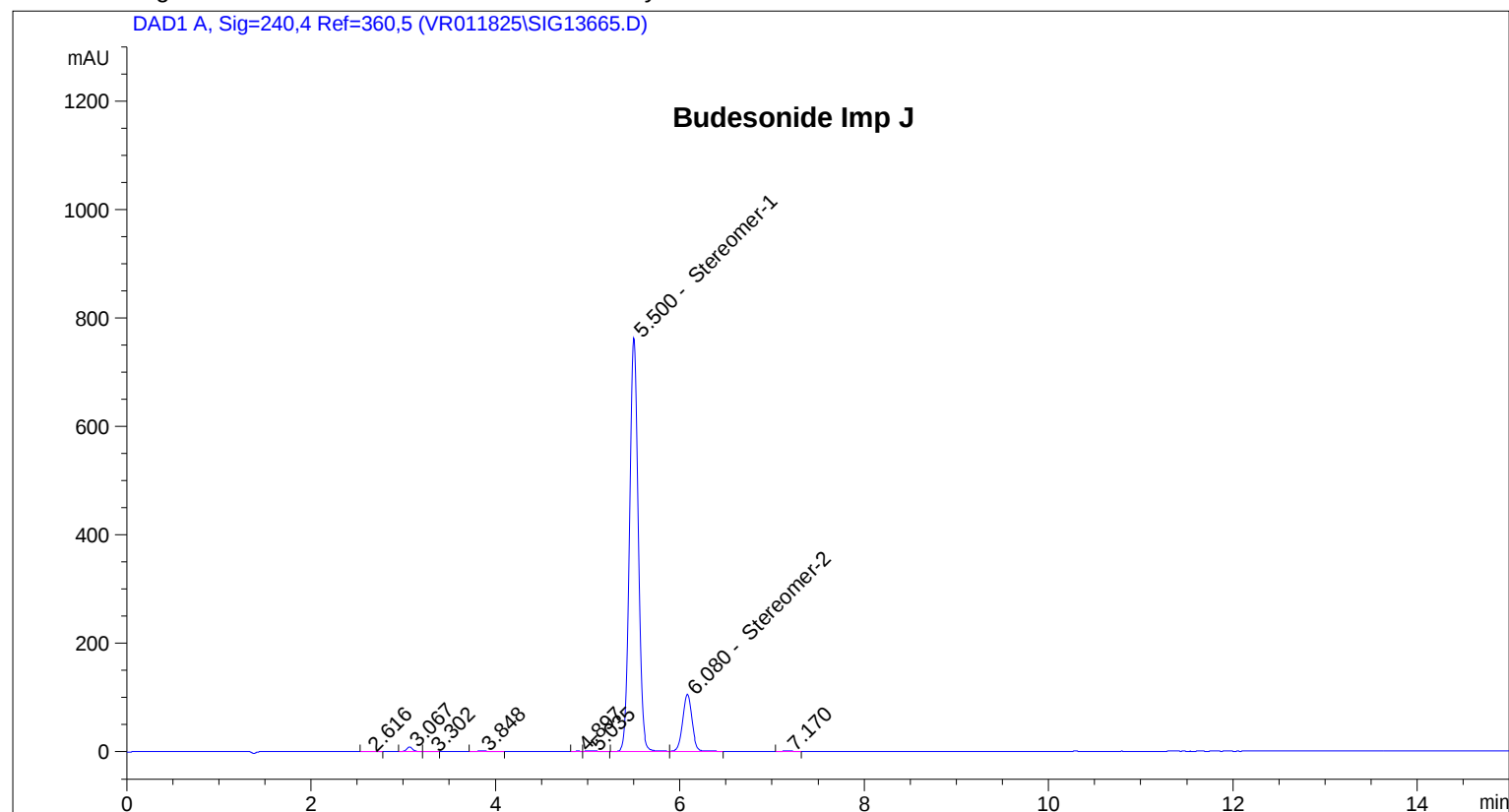
pp_2021_001_GR_15_131_1 #2047 RT: 4.60 AV: 1 NL: 4.40E7
T: FTMS + p ESI Full ms [300.0000-1000.0000]



Expansion of above.

Sample Name: GR-15-131 spl-2

```
=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 24
Injection Date  : 8/15/2025 9:25:46 AM
                                           Inj Volume : 5.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR081525-131.M
Last changed    : 8/15/2025 9:22:56 AM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR081525_131PM.M
Last changed    : 8/15/2025 1:07:24 PM by vrusu
=====
```



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=====
                          Area Percent Report
=====
```

```
Sorted By           :      Signal
Calib. Data Modified :      8/15/2025 1:07:01 PM
Multiplier:         :      1.0000
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: DAD1 A, Sig=240,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.616	BB	0.0666	1.54896	0.0271	?
2	3.067	BB	0.0671	35.85031	0.6282	?
3	3.302	BB	0.0705	1.87559	0.0329	?
4	3.848	BB	0.1068	6.55746	0.1149	?
5	4.897	BV	0.0689	1.86142	0.0326	?
6	5.035	VB	0.0969	8.83091	0.1547	?
7	5.500	BV	0.0991	4913.03906	86.0931	Stereomer-1
8	6.080	VB	0.1074	733.56775	12.8546	Stereomer-2

Sample Name: GR-15-131 spl-2

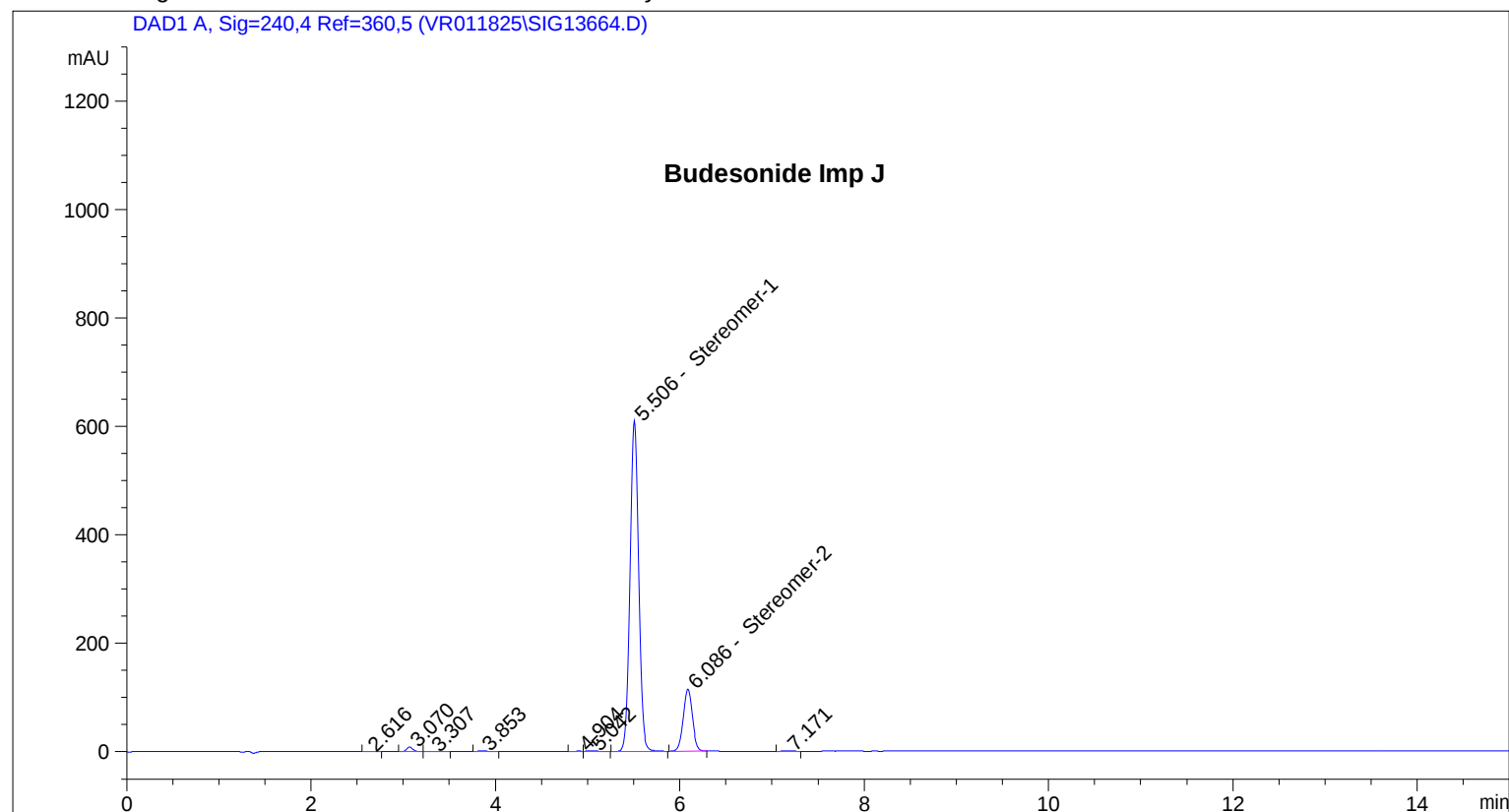
Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	7.170	BB	0.1218	3.52926	0.0618	?

Totals : 5706.66072

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*** End of Report ***

Sample Name: GR-15-131

```
=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 23
Injection Date  : 8/15/2025 9:06:40 AM
                                           Inj Volume : 5.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR081525-131.M
Last changed    : 8/15/2025 9:03:03 AM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR081525_131PM.M
Last changed    : 8/15/2025 1:07:24 PM by vrusu
=====
```



```
=====
                        Area Percent Report
=====
```

```
Sorted By           :      Signal
Calib. Data Modified :      8/15/2025 1:07:01 PM
Multiplier:         :      1.0000
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: DAD1 A, Sig=240,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.616	BB	0.0617	2.03657	0.0430	?
2	3.070	BV	0.0662	36.97432	0.7807	?
3	3.307	VB	0.0725	2.58075	0.0545	?
4	3.853	BB	0.0988	8.58011	0.1812	?
5	4.904	BV	0.0782	1.98715	0.0420	?
6	5.042	VB	0.1010	9.70013	0.2048	?
7	5.506	BB	0.1005	3890.20581	82.1448	Stereomer-1
8	6.086	BB	0.1058	780.70483	16.4852	Stereomer-2

Sample Name: GR-15-131

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	7.171	BB	0.0946	3.02057	0.0638	?

Totals : 4735.79025

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*** End of Report ***