

Client



Source



Patchouli (*Pogostemon cablin*)  
201826

Sample

Patchouli (*Pogostemon cablin*)  
Batch #:..... 201826  
Type:..... Essential Oil  
CAS Number:... 2233340  
**Nature's Fusions**

Client



Website

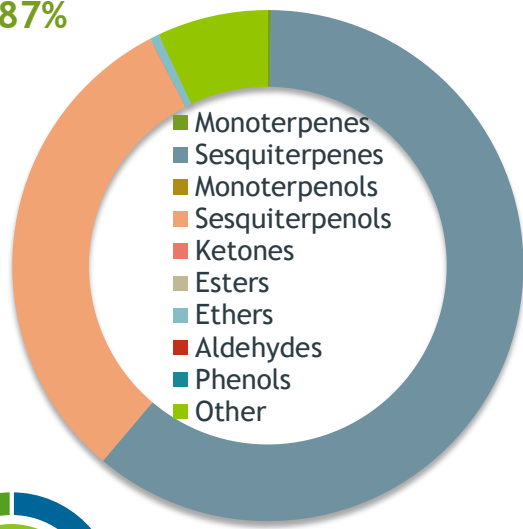


Primary

**27.57%** | Patchouli alcohol  
**17.45** | delta-Guaiene  
**14.08%** | alpha-Guaiene

Sesquiterpenes

60.87%



Percentage Identified

Result



Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Patchouli (*Pogostemon cablin*)

Internal Number: | EVS-4154



Essential Validation Services

747 SW 2nd Ave IMB 12 Suite 306  
Gainesville, FL 32601

317.361.5044 | <https://essentialvalidationservices.com/>

*Alan Christen*

Monoterpenes	0.20%
Sesquiterpenes	60.87%
Monoterpenols	0.00%
Sesquiterpenols	31.18%
Ketones	0.02%
Esters	0.00%
Ethers	0.58%
Aldehydes	0.00%
Phenols	0.00%
Other	7.01%

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Client


 Nature's FUSIONS  
ESSENTIAL OILS

Source

Patchouli (*Pogostemon cablin*)

201826

Total Percentage		94.72%		
Number	RT	Area %	Compound Name	Chemical Family
1	8.29	0.05%	alpha-Pinene	Monoterpene
2	10.01	0.13%	beta-Pinene	Monoterpene
3	10.95	0.01%	3-Octanol	Aliphatic Alcohol
4	12.26	0.02%	Limonene	Monoterpene
5	26.10	0.15%	delta-Elemene	Sesquiterpene
6	27.81	0.16%	alpha-Copaene	Sesquiterpene
7	28.13	2.54%	beta-Patchoulene	Sesquiterpene
8	28.44	1.61%	beta-Elemene	Sesquiterpene
9	29.00	0.01%	cis-Caryophyllene	Sesquiterpene
10	29.13	0.06%	alpha-Gurjunene	Sesquiterpene
11	29.36	0.72%	Cycloseychellene	Sesquiterpene
12	29.63	3.72%	beta-Caryophyllene	Sesquiterpene
13	30.13	0.02%	gamma-Elemene	Sesquiterpene
14	30.43	14.08%	alpha-Guaiene	Sesquiterpene
15	30.79	7.13%	Seychellene	Sesquiterpene
16	30.94	0.14%	beta-Humulene	0.00
17	31.11	0.83%	alpha-Humulene	Sesquiterpene
18	31.31	5.16%	alpha-Patchoulene	Sesquiterpene
19	31.42	1.96%	gamma-Patchoulene	Sesquiterpene
20	31.54	1.62%	Patchoulene isomer	
21	31.86	0.01%	gamma-Selinene	Sesquiterpene
22	31.96	0.47%	gamma-Gurjunene	Sesquiterpene
23	32.48	0.53%	beta-Selinene	Sesquiterpene
24	32.62	0.02%	Valencene	Sesquiterpene
25	32.82	3.38%	Aciphyllene	Sesquiterpene
26	32.92	0.48%	(E,E)-alpha-Farnesene	Sesquiterpene
27	33.14	17.45%	delta-Guaiene	Sesquiterpene
28	33.39	0.09%	Nootkatene	Sesquiterpene
29	33.67	0.27%	alpha-Panasinsen	Sesquiterpene
30	34.85	0.05%	Elemol	Sesquiterpenol
31	35.31	0.02%	Germacrene B	Sesquiterpene
32	35.51	0.52%	Norpatchoulenol	Norsesquiterpenol
33	35.75	0.27%	Longipinanol	Sesquiterpenol
34	36.06	0.49%	Caryophyllene oxide	Sesquiterpene Ether
35	36.26	0.49%	Spathulenol	Sesquiterpenol

Client



Source



*Patchouli (Pogostemon cablin)*  
201826

Number	RT	Area %	Compound Name	Chemical Family
36	37.128	0.09%	Humulene epoxide II	Sesquiterpenol
37	39.04	2.67%	Pogostol	Sesquiterpenol
38	39.46	27.57%	Patchouli alcohol	Sesquiterpenol
39	39.70	0.13%	Allohimachalol	Sesquiterpenol
40	41.02	1.20%	Pogostone	Lactone
41	44.42	0.02%	Nootkatone	Sesquiterpene Ketone

ESSENTIAL VALIDATION SERVICES | 14 / SW 2<sup>nd</sup> AVE GAINESVILLE, FLORIDA 32601 | 351-351-3044





## *Essential Validation Services*





**Sample:**

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Client: | Nature's Fusions  
Sample: | Patchouli Dark (Pogostemon cablin)  
Batch # | 11109-B30  
CAS Number | 8014-09-3  
Type: | Essential Oil

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**Conclusion:**

- No adulterants, diluents, or contaminants were detected via this method.



X *Adam Christen*

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

**Summary of Analyses**

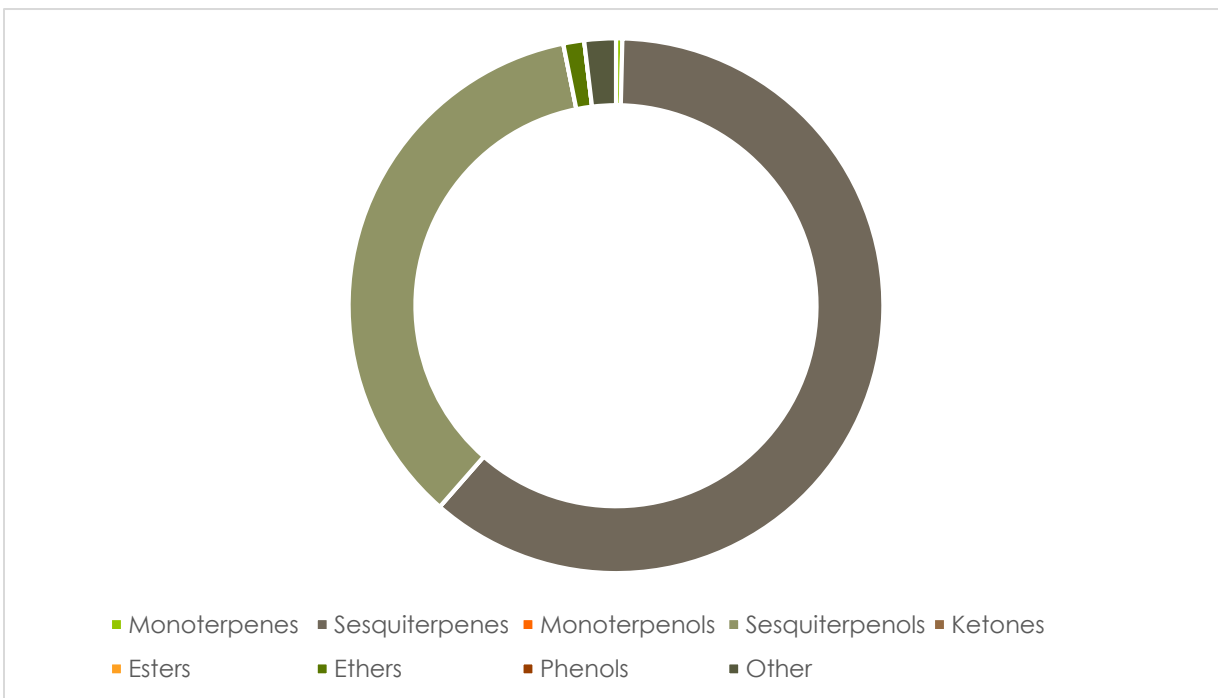
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A fresh sample of Patchouli (Pogostemon cablin) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.



Main Compounds	Percentages
Patchouli alcohol	27.79%
delta-Guaiene	15.15%
alpha-Guaiene	12.95%
Seychellene	8.19%
alpha-Patchoulene	5.75%
Eremophilene	3.77%
beta-Caryophyllene	3.26%
Globulol	3.02%
beta-Patchoulene	3.01%
gamma-Gurjunene	1.74%
Pogostol	1.53%
1-epi-Cubenol	1.33%
gamma-Patchoulene	1.31%

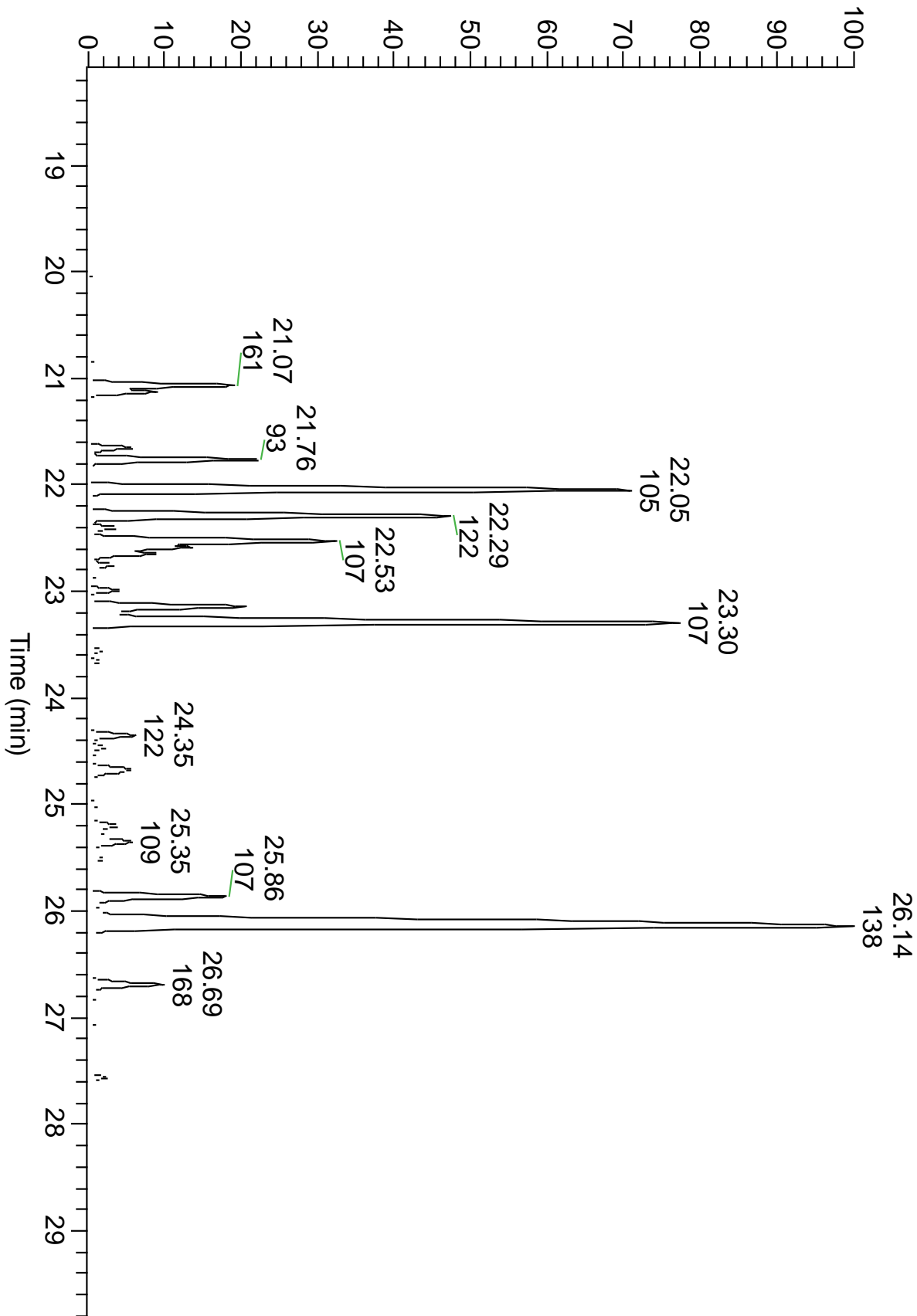
Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
0.38%	60.63%	0.00%	35.13%	0.00%
Esters	Ethers	Aldehydes	Phenols	Other
0.00%	1.25%	0.00%	0.00%	1.89%



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RT: 18.07 - 29.86







Total Percentage	99.28%				
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	10.75	0.11%	alpha-Pinene	936.10	Monoterpenes
2	11.92	0.27%	beta-Pinene	977.70	Monoterpenes
3	20.06	0.12%	delta-Elemene	1335.83	Sesquiterpenes
4	20.87	0.17%	alpha-Bourbonene	1375.20	Sesquiterpenes
5	21.07	3.01%	beta-Patchoulene	1380.00	Sesquiterpenes
6	21.13	1.18%	beta-Elemene	1388.30	Sesquiterpenes
7	21.65	0.86%	Cycloseychellene	1402.00	Sesquiterpenes
8	21.76	3.26%	beta-Caryophyllene	1427.14	Sesquiterpenes
9	22.05	12.95%	alpha-Guaiene	1438.67	Sesquiterpenes
10	22.29	8.19%	Seychellene	1460.50	Sesquiterpenes
11	22.40	0.56%	alpha-Humulene	1461.43	Sesquiterpenes
12	22.53	5.75%	alpha-Patchoulene	1473.50	Sesquiterpenes
13	22.58	1.74%	gamma-Gurjunene	1475.00	Sesquiterpenes
14	22.64	1.31%	gamma-Patchoulene	1477.50	Sesquiterpenes
15	22.75	0.55%	delta-Patchoulene	1480.50	Sesquiterpenes
16	22.85	0.17%	ar-Curcumene	1482.71	Sesquiterpenes
17	22.98	0.57%	delta-Selinene	1494.00	Sesquiterpenes
18	23.14	3.77%	Eremophilene	1498.00	Sesquiterpenes
19	23.30	15.15%	delta-Guaiene	1502.35	Sesquiterpenes
20	23.56	0.24%	Nootkatene	1504.50	Sesquiterpenes
21	23.65	0.20%	7-epi- $\alpha$ -Selinene	1505.00	Sesquiterpenes
22	24.35	0.88%	Selina-3,7(11)-diene	1544.50	Sesquiterpenes
23	24.46	0.29%	Norpatchoulenol	1577.00	Sesquiterpenols
24	24.67	1.25%	Caryophyllene oxide	1594.86	Ethers
25	24.83	0.10%	UK Sesquiterpene	#N/A	#N/A
26	25.00	0.22%	UK Sesquiterpene	#N/A	#N/A
27	25.20	0.78%	1,10-diepi-Cubenol	1612.29	Sesquiterpenols
28	25.35	1.33%	1-epi-Cubenol	1628.00	Sesquiterpenols
29	25.51	0.39%	Globulol	1589.71	Sesquiterpenols
30	25.63	0.26%	UK Sesquiterpene	#N/A	#N/A
31	25.75	0.15%	UK Sesquiterpene	#N/A	#N/A
32	25.86	3.02%	Globulol	1589.71	Sesquiterpenols
33	26.14	27.79%	Patchouli alcohol	1660.50	Sesquiterpenols
34	26.25	0.28%	UK Sesquiterpene	#N/A	#N/A
35	26.69	1.53%	Pogostol	1663.00	Sesquiterpenols
36	26.86	0.13%	UK Sesquiterpene	#N/A	#N/A
37	27.09	0.12%	UK Sesquiterpene	#N/A	#N/A
38	27.16	0.10%	UK Sesquiterpene	#N/A	#N/A
39	27.36	0.02%	UK Sesquiterpene	#N/A	#N/A
40	27.56	0.28%	Pogostone	1734.00	Lactone
41	27.64	0.04%	UK Sesquiterpene	#N/A	#N/A
42	27.71	0.05%	UK Sesquiterpene	#N/A	#N/A



## *Essential Validation Services*





**Sample:**

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Client: | Nature's Fusions  
Sample: | Patchouli Dark (Pogostemon cablin)  
Batch # | 11109-B23-1  
CAS Number | 8014-09-3  
Type: | Essential Oil

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**Conclusion:**

- No adulterants, diluents, or contaminants were detected via this method.



X *Adam Christen*

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Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

**Summary of Analyses**

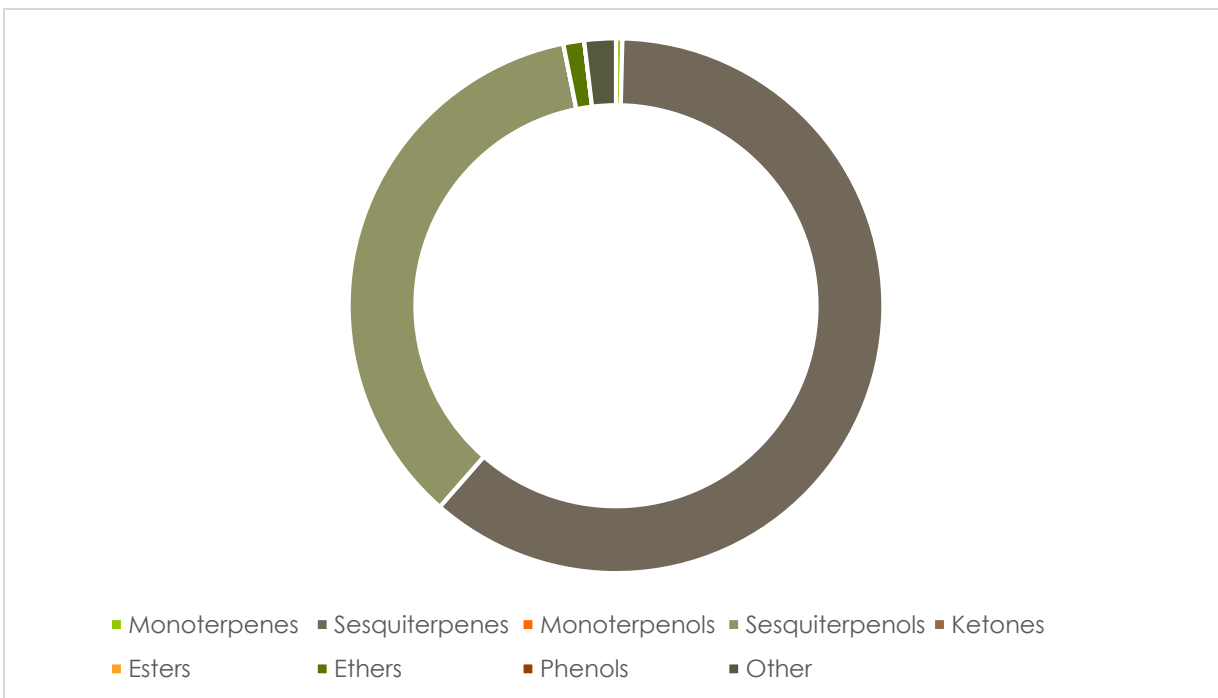
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beta-Patchoulene	3.01%
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Pogostol	1.53%
1-epi-Cubenol	1.33%
gamma-Patchoulene	1.31%

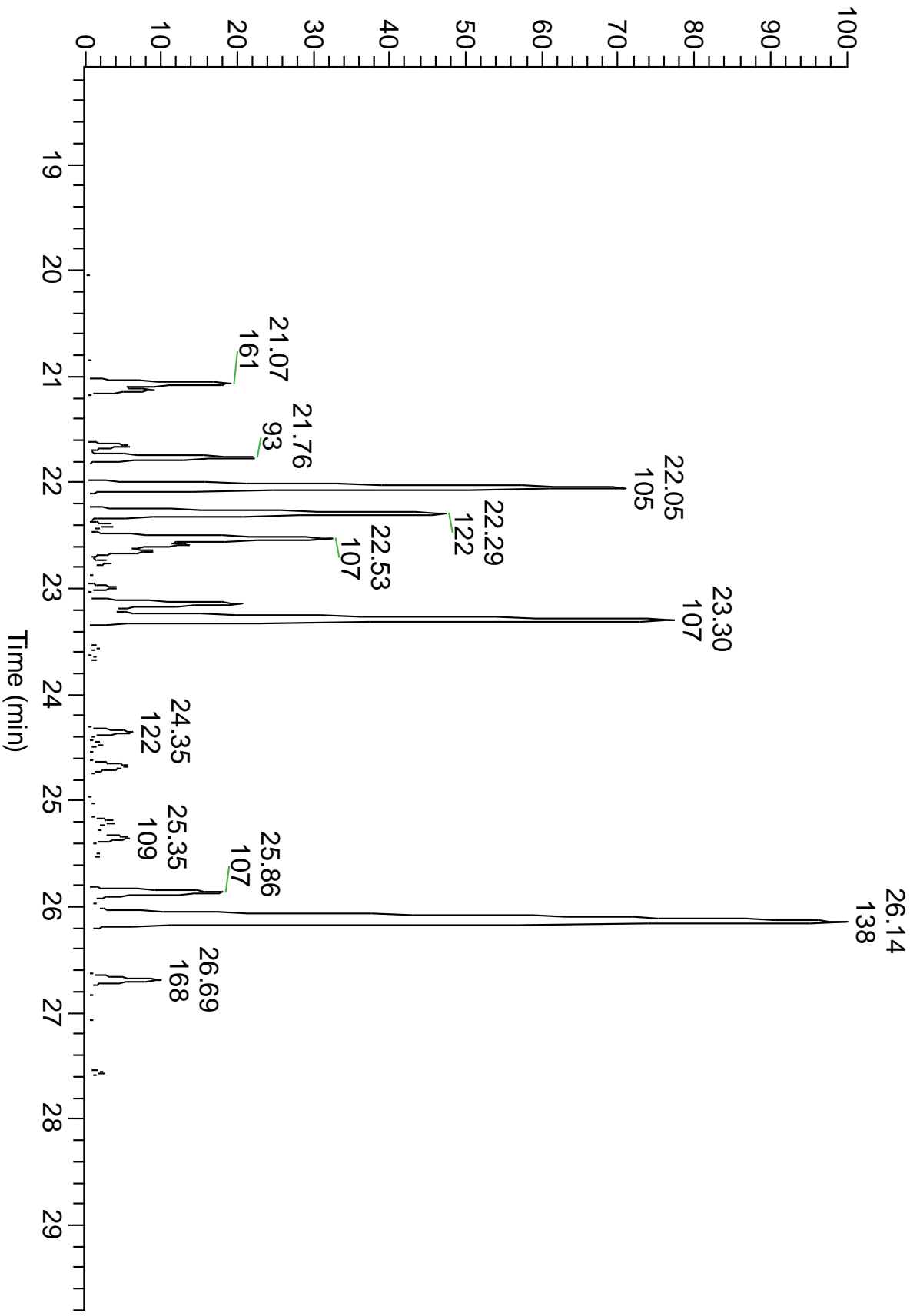
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0.38%	60.63%	0.00%	35.13%	0.00%
Esters	Ethers	Aldehydes	Phenols	Other
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ESSENTIAL VALIDATION SERVICES | 747 SW 2<sup>ND</sup> AVE GAINESVILLE, FLORIDA 32601 | 317-361-5044



RT: 18.07 - 29.86





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4	20.87	0.17%	alpha-Bourbonene	1375.20	Sesquiterpenes
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