# Columbia LABORATORIES
### A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

**Customer:** Healthy Roots
**Product identity:** #294 1000mg natural tincture
**Client/Metrc ID:** .
**Laboratory ID:** 23-012216-0001

# Summary

**Potency:**

| Analyte | Result | Limits | Units | Status |
|---|---|---|---|---|
| CBC | 0.0687 | | % | |
| CBD | 3.75 | | % | |
| CBD-A | 0.0788 | | % | |
| CBDV | 0.0198 | | % | |
| CBG | 0.0438 | | % | |
| CBT | 0.0228 | | % | |
| Δ9-THC | 0.104 | | % | |

| Analyte per 28.5g | Result | Limits | Units | Status |
|---|---|---|---|---|
| CBC per 28.5g | 19.6 | | mg/28.5g | |
| CBD per 28.5g | 1070 | | mg/28.5g | |
| CBD-A per 28.5g | 22.5 | | mg/28.5g | |
| CBDV per 28.5g | 5.64 | | mg/28.5g | |
| CBG per 28.5g | 12.5 | | mg/28.5g | |
| CBT per 28.5g | 6.50 | | mg/28.5g | |
| Δ9-THC per 28.5g | 29.6 | | mg/28.5g | |

| | |
|---|---|
| CBD-Total per Serving Size | 1090 mg/28.5g |
| THC-Total per Serving Size | 29.6 mg/28.5g |

(Reported in milligrams per serving)

**www.columbialaboratories.com**

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| | |
|---|---|
| **REPORT NUMBER:** | 23-012216/D002.R000 |
| **Report Date:** | 10/20/2023 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 10/13/23  11:05 |

**Customer:** Healthy Roots

| | |
|---|---|
| **Product identity:** | #294 1000mg natural tincture |
| **Client/Metrc ID:** | . |
| **Sample Date:** | |
| **Laboratory ID:** | 23-012216-0001 |
| **Evidence of Cooling:** | No |
| **Temp:** | 24.7 °C |
| **Relinquished by:** | client |
| **Serving Size #1:** | 28.5 g |

## Sample Results

| Potency | **Method:** J AOAC 2015 V98-6 (mod)ᵇ | | **Units** % | **Batch:** 2311963 | **Analyze:** 10/17/23  10:48:00 P |
|---|---|---|---|---|---|
| **Analyte** | **Result** | **Limits** | **Units** | **LOQ** | **Notes** |
| CBC | 0.0687 | | % | 0.00313 | |
| CBC-A | < LOQ | | % | 0.00313 | |
| CBC-Total | 0.0687 | | % | 0.00587 | |
| CBD | 3.75 | | % | 0.0313 | |
| CBD-A | 0.0788 | | % | 0.00313 | |
| CBD-Total | 3.82 | | % | 0.0340 | |
| CBDV | 0.0198 | | % | 0.00313 | |
| CBDV-A | < LOQ | | % | 0.00313 | |
| CBDV-Total | 0.0198 | | % | 0.00584 | |
| CBE | < LOQ | | % | 0.00313 | |
| CBG | 0.0438 | | % | 0.00313 | |
| CBG-A | < LOQ | | % | 0.00313 | |
| CBG-Total | 0.0438 | | % | 0.00584 | |
| CBL | < LOQ | | % | 0.00313 | |
| CBL-A | < LOQ | | % | 0.00313 | |
| CBL-Total | < LOQ | | % | 0.00587 | |
| CBN | < LOQ | | % | 0.00313 | |
| CBT | 0.0228 | | % | 0.00313 | |
| Δ8-THCV | < LOQ | | % | 0.00313 | |
| Δ10-THC-9R | < LOQ | | % | 0.00313 | |
| Δ10-THC-9S | < LOQ | | % | 0.00313 | |
| Δ10-THC-Total | < LOQ | | % | 0.00626 | |
| Δ8-THC | < LOQ | | % | 0.00313 | |
| Δ9-THC | 0.104 | | % | 0.00313 | |
| delta-9-THCP | < LOQ | | % | 0.00313 | |
| exo-THC | < LOQ | | % | 0.00313 | |
| THC-A | < LOQ | | % | 0.00313 | |
| THC-Total | 0.104 | | % | 0.00587 | |
| THCV | < LOQ | | % | 0.00313 | |
| THCV-A | < LOQ | | % | 0.00313 | |
| THCV-Total | < LOQ | | % | 0.00584 | |
| **Total Cannabinoids** | **4.09** | | % | | |

| Potency per 28.5g | **Method:** J AOAC 2015 V98-6 (mod)[b] | | **Units** mg/se **Batch:** 2311963 | | **Analyze:** 10/17/23  10:48:00 P |
|---|---|---|---|---|---|
| **Analyte** | **Result** | **Limits** | **Units** | **LOQ** | **Notes** |
| CBC per 28.5g | 19.6 | | mg/28.5g | 0.892 | |
| CBC-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBC-Total per 28.5g | 19.6 | | mg/28.5g | 1.67 | |
| CBD per 28.5g | 1070 | | mg/28.5g | 8.92 | |
| CBD-A per 28.5g | 22.5 | | mg/28.5g | 0.892 | |
| CBD-Total per 28.5g | 1090 | | mg/28.5g | 9.70 | |
| CBDV per 28.5g | 5.64 | | mg/28.5g | 0.892 | |
| CBDV-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBDV-Total per 28.5g | 5.64 | | mg/28.5g | 1.66 | |
| CBE per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBG per 28.5g | 12.5 | | mg/28.5g | 0.892 | |
| CBG-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBG-Total per 28.5g | 12.5 | | mg/28.5g | 1.66 | |
| CBL per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBL-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBL-Total per 28.5g | < LOQ | | mg/28.5g | 1.67 | |
| CBN per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| CBT per 28.5g | 6.50 | | mg/28.5g | 0.892 | |
| $\Delta 8$-THCV per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| $\Delta 10$-THC-9R per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| $\Delta 10$-THC-9S per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| $\Delta 10$-THC-Total per 28.5g | < LOQ | | mg/28.5g | 1.78 | |
| $\Delta 8$-THC per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| $\Delta 9$-THC per 28.5g | 29.6 | | mg/28.5g | 0.892 | |
| delta-9-THCP per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| exo-THC per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| THC-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| THC-Total per 28.5g | 29.6 | | mg/28.5g | 1.67 | |
| THCV per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| THCV-A per 28.5g | < LOQ | | mg/28.5g | 0.892 | |
| THCV-Total per 28.5g | < LOQ | | mg/28.5g | 1.67 | |
| Total Cannabinoids per 28.5g | 1170 | | mg/28.5g | | |

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![Columbia Laboratories - A Tentamus Company]

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503-254-1794

| | |
|---|---|
| **Report Number:** | 23-012216/D002.R000 |
| **Report Date:** | 10/20/2023 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 10/13/23  11:05 |

***Abbreviations***

 **Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

 **Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target
 analyte) that can be reported with a specified degree of confidence.

 ♭ = ISO/IEC 17025:2017 accredited method.

***Units of Measure***

 g = g
 mg/28.5g = Milligram per 28.5g
 % = Percentage of sample
 % wt = μg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager

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**Report Date:** 10/20/2023

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**Received:** 10/13/23  11:05

Revision: 4 Document ID: 7148
Legacy ID:  Worksheet Validated 04/20/2021

## Laboratory Quality Control Results

**J AOAC 2015 V98-6** — **Batch ID: 2311963**

### Laboratory Control Sample

| Analyte | LCS | Result | Spike | Units | % Rec | Limits | | | Evaluation | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| CBDVA | 2 | 0.0307 | 0.0333 | % | 92.2 | 80.0 | - | 120 | Acceptable | |
| CBDV | 2 | 0.0309 | 0.0324 | % | 95.4 | 80.0 | - | 120 | Acceptable | |
| CBE | 2 | 0.0329 | 0.0355 | % | 92.7 | 80.0 | - | 120 | Acceptable | |
| CBDA | 1 | 0.0310 | 0.0322 | % | 96.0 | 90.0 | - | 110 | Acceptable | |
| CBGA | 1 | 0.0314 | 0.0329 | % | 95.4 | 80.0 | - | 120 | Acceptable | |
| CBG | 1 | 0.0355 | 0.0368 | % | 96.7 | 80.0 | - | 120 | Acceptable | |
| CBD | 1 | 0.0308 | 0.0313 | % | 98.2 | 90.0 | - | 110 | Acceptable | |
| THCV | 2 | 0.0280 | 0.0304 | % | 91.9 | 80.0 | - | 120 | Acceptable | |
| d8THCV | 2 | 0.0291 | 0.0305 | % | 95.4 | 80.0 | - | 120 | Acceptable | |
| THCVA | 2 | 0.0305 | 0.0327 | % | 93.3 | 80.0 | - | 120 | Acceptable | |
| CBN | 1 | 0.0316 | 0.0329 | % | 96.2 | 80.0 | - | 120 | Acceptable | |
| exo-THC | 2 | 0.0298 | 0.0327 | % | 91.2 | 80.0 | - | 120 | Acceptable | |
| d9THC | 1 | 0.0345 | 0.0365 | % | 94.6 | 90.0 | - | 110 | Acceptable | |
| d8THC | 1 | 0.0331 | 0.0340 | % | 97.4 | 90.0 | - | 110 | Acceptable | |
| 9S-d10THC | 1 | 0.0326 | 0.0337 | % | 96.6 | 80.0 | - | 120 | Acceptable | |
| CBL | 2 | 0.0319 | 0.0337 | % | 94.6 | 80.0 | - | 120 | Acceptable | |
| 9R-d10THC | 1 | 0.0318 | 0.0336 | % | 94.6 | 80.0 | - | 120 | Acceptable | |
| CBC | 2 | 0.0311 | 0.0338 | % | 91.8 | 80.0 | - | 120 | Acceptable | |
| THCA | 1 | 0.0308 | 0.0337 | % | 91.5 | 90.0 | - | 110 | Acceptable | |
| CBCA | 2 | 0.0295 | 0.0333 | % | 88.6 | 80.0 | - | 120 | Acceptable | |
| CBLA | 2 | 0.0315 | 0.0349 | % | 90.4 | 80.0 | - | 120 | Acceptable | |
| d9THCP | 2 | 0.0293 | 0.0333 | % | 88.0 | 80.0 | - | 120 | Acceptable | |
| CBT | 2 | 0.0288 | 0.0322 | % | 89.4 | 80.0 | - | 120 | Acceptable | |

### Method Blank

| Analyte | Result | LOQ | Units | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|
| CBDVA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBDV | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBE | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBDA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBGA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBG | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBD | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| THCV | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| d8THCV | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| THCVA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBN | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| exo-THC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| d9THC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| d8THC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| 9S-d10THC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBL | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| 9R-d10THC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBC | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| THCA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBCA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBLA | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| d9THCP | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |
| CBT | <LOQ | 0.00331 | % | < 0.00331 | Acceptable | |

*Abbreviations*

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

*Units of Measure:*
% - Percent

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**REPORT NUMBER:** 23-012216/D002.R000

**Report Date:** 10/20/2023

**ORELAP#:** OR100028

**Purchase Order:**

**Received:** 10/13/23 11:05

Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

| J AOAC 2015 V98-6 | | | | | | Batch ID: 2311963 | | |
|---|---|---|---|---|---|---|---|---|
| Sample Duplicate | | | | | | Sample ID: 23-012215-0001 | | |
| Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Evaluation | Notes |
| CBDVA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBDV | 0.0360 | 0.0367 | 0.00330 | % | 1.83 | < 20 | Acceptable | |
| CBE | 0.0584 | 0.0581 | 0.00330 | % | 0.501 | < 20 | Acceptable | |
| CBDA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBGA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBG | 0.0429 | 0.0422 | 0.00330 | % | 1.74 | < 20 | Acceptable | |
| CBD | 3.78 | 3.84 | 0.00330 | % | 1.54 | < 20 | Acceptable | |
| THCV | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| d8THCV | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| THCVA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBN | 0.0241 | 0.0242 | 0.00330 | % | 0.349 | < 20 | Acceptable | |
| exo-THC | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| d9THC | 0.135 | 0.135 | 0.00330 | % | 0.235 | < 20 | Acceptable | |
| d8THC | 0.0311 | 0.0309 | 0.00330 | % | 0.505 | < 20 | Acceptable | |
| 9S-d10THC | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBL | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| 9R-d10THC | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBC | 0.245 | 0.245 | 0.00330 | % | 0.0285 | < 20 | Acceptable | |
| THCA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBCA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBLA | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| d9THCP | <LOQ | <LOQ | 0.00330 | % | NA | < 20 | Acceptable | |
| CBT | 0.0673 | 0.0474 | 0.00330 | % | 34.6 | < 20 | Outlier | R, Q6 |

*Abbreviations*

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

*Units of Measure:*

% - Percent

**REPORT Number:** 23-012216/D002.R000
**Report Date:** 10/20/2023
**ORELAP#:** OR100028
**Purchase Order:**
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Explanation of QC Flag Comments:

| Code | Explanation |
|------|-------------|
| Q | Matrix interferences affecting spike or surrogate recoveries. |
| Q1 | Quality control result biased high. Only non-detect samples reported. |
| Q2 | Quality control outside QC limits. Data considered estimate. |
| Q3 | Sample concentration greater than four times the amount spiked. |
| Q4 | Non-homogenous sample matrix, affecting RPD result and/or % recoveries. |
| Q5 | Spike results above calibration curve. |
| Q6 | Quality control outside QC limits. Data acceptable based on remaining QC. |
| R | Relative percent difference (RPD) outside control limit. |
| R1 | RPD non-calculable, as sample or duplicate results are less than five times the LOQ. |
| R2 | Sample replicates RPD non-calculable, as only one replicate is within the analytical range. |
| LOQ1 | Quantitation level raised due to low sample volume and/or dilution. |
| LOQ2 | Quantitaion level raised due to matrix interference. |
| B | Analyte detected in method blank, but not in associated samples. |
| B1 | The sample concentration is greater than 5 times the blank concentration. |
| B2 | The sample concentration is less than 5 times the blank concentration. |