



# ANANDIALABS

# Certificate of Analysis

Client: The Hydro Apothecary

Anandia Sample ID: ALPM-1196

Lot #: 184

Authorized By:

Andrew Wayne, PhD  
Lead Scientist - Plant Analytics

CoA Prepared: 09-Jun-17

| <b>Potency Analysis</b> (14 cannabinoids quantified) |   | wt %  | mg/g |
|--|---|-------|------|
| Total THC equivalents                                | ( $\Delta 9\text{-THC} + \Delta 9\text{-THCA} \times 0.877$ ) | 9.03% | 90.3 |
| Total CBD equivalents                                | ( $\text{CBD} + \text{CBDA} \times 0.877$ )                   | 0.02% | 0.2  |

## Contaminant Analysis

### Microbial

|  |        |
|--|--------|
| Total aerobic microbial counts (Limit: <500,000 CFU/g)       | pass   |
| Total yeast and mold counts (Limit: <50,000 CFU/g)           | pass   |
| Bile-tolerated Gram negative bacteria (Limit: <10,000 CFU/g) | pass   |
| E. coli (Limit: absent in 1 g)                               | absent |
| Salmonella (Limit: absent in 25 g)                           | absent |

### Aflatoxin B1

Aflatoxin B1 (Limit 2 ppb)

pass

### Heavy Metals

|                         |      |                         |      |
|-------------------------|------|-------------------------|------|
| Arsenic (Limit 1.5 PPM) | pass | Lead (Limit 5.0 PPM)    | pass |
| Cadmium (Limit 1.0 PPM) | pass | Mercury (Limit 0.1 PPM) | pass |

### Pesticides

None reported

Abbreviations: wt % = percentage of dry weight, CFU = colony forming unit, PPM = Parts Per Million, PPB = Parts Per Billion

## Details of Testing

### Cannabinoid Profile Test Results

Full spectrum 14 cannabinoid analysis utilizing Ultra High Performance Liquid Chromatography with Tandem Mass Spectrometry detection (UPLC-MS/MS). [Anandia Method: AL-401 v1, LOQ for all cannabinoids is 40 ng/mL or 0.04 PPM]

### Residual Solvent Testing

Residual Solvent Testing for 10 solvents commonly found in cannabis extracts utilizing Head Space Gas Chromatography and Mass Spectroscopy Detection (HS-GC-MS). Limits for residual solvents are set by ICH Class 3 Q3C(R6). [Anandia Method: AL-410 v1]

### Microbial Test Results

Microbiological testing adheres to the European Pharmacopoeia (EP) 5.1.8, EP methods 2.6.31 to ensure the safety of cannabis by identifying the type and level of microorganisms present in each sample. [Anandia Method: AL-402 v2]

### Aflatoxin Test Results

Aflatoxin B1 testing is compliant with EP 2.8.18 (Aflatoxin B1 2.0 ppb Limit) and employs immunoaffinity column chromatography followed by UPLC-MS/MS analysis to quantify aflatoxin B1. [Anandia Method: AL-405]

### Heavy Metal Analysis

Heavy metal testing uses microwave digestion and Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) (USEPA 6020A R1 2007) detection to measure Arsenic, Cadmium, Lead and total Mercury. [Anandia Method: AL-404 v1]

### Pesticide Analysis

Anandia Labs is the first lab in Canada to design a customized multi-residue analysis for pesticides and plant growth regulators (PGRs) commonly used on cannabis. This work was guided by the Oregon White Paper entitled "Technical Report: Oregon Health Authority's Process to Determine Which Types of Contaminants to Test for in cannabis Products, and Levels for Action". Anandia's pesticide screen is performed using LC-MS/MS and can screen down to below single digit ppb concentrations for most pesticides. Currently we analyze for 51 pesticides, fungicides, and plant growth regulators. [Anandia Method: AL-407 v1]

#### Pesticides and Plant Growth Regulators tested for:

|                      |              |                    |                 |
|----------------------|--------------|--------------------|-----------------|
| Abamectin            | Diazinon     | Imidacloprid       | Pyrethrin I     |
| Acephate             | Dichlorvos   | Kresoxim-methyl    | Pyrethrin II    |
| Acetamiprid          | Dimethoate   | Malathion          | Pyridaben       |
| Aldicarb             | Ethoprophos  | Metalaxyl          | Spinosad A      |
| Azoxystrobin         | Etofenprox   | Methiocarb         | Spinosad D      |
| Bifenazate           | Etoxazole    | Methomyl           | Spiromesifen    |
| Boscalid             | Fenoxycarb   | Myclobutanil       | Spirotetramat   |
| Carbaryl             | Fenpyroximat | Oxamyl             | Spiroxamine     |
| Carbofuran           | Fipronil     | Paclobutrazol      | Tebuconazole    |
| Chlorantraniliprole  | Flonicamid   | Phosmet            | Thiacloprid     |
| Chlorpyrifos (ethyl) | Fludioxonil  | Piperonyl butoxide | Thiamethoxam    |
| Clofentezine         | Hexythiazox  | Propiconazole      | Trifloxystrobin |
| Daminozide           | Imazalil     | Propoxur           |                 |

