

PharmLabs San Diego Certificate of Analysis

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 ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368



Sample **Ghost - Live Resin**

Sample ID	SD221102-003 (54370)	Matrix	Concentrate (Inhalable Cannabis Good)
Distributor License	604034860	Address	1 Vanderbilt, Irvine CA, 92618
Received	Nov 01, 2022	Reported	Nov 07, 2022
Analyses executed	CANX, RES, MIBIG, MTO, PES, HME, FVI		

**Laboratory note:** The estimated concentration of the unknown peak in the sample is 10.38%. Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)- $\delta^8$ -THC or  $d^9$ -THC. At this time there are no reference standards available for (+)- $\delta^8$ -THC. (+)- $\delta^8$ -THC is a different compound from the main (-)- $\delta^8$ -THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)- $\delta^8$ -THC and  $d^9$ -THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)- $\delta^8$ -THC and  $d^9$ -THC with the majority, if not all, of the concentration being (+)- $\delta^8$ -THC. Total (+/-)  $\delta^8$  Concentration is estimated to be: 73.70%

**CANX - Cannabinoids Analysis**

Analyzed Nov 07, 2022 | Instrument HLPC  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy- $\Delta^8$ -Tetrahydrocannabivarin (11-Hyd- $\Delta^8$ -THCV)	0.013	0.041	ND	ND
Cannabidiol (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiol (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-Hydroxy-Hexahydrocannabinol (9b-HHC)	0.012	0.036	ND	ND
11-Hydroxy- $\Delta^8$ -Tetrahydrocannabinol (11-Hyd- $\Delta^8$ -THC)	0.007	0.021	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	ND	ND
Cannabigerol Acid (CBGA)	0.001	0.16	ND	ND
Cannabigerol (CBG)	0.001	0.16	0.41	4.09
Cannabidiol (CBD)	0.001	0.16	1.40	14.00
$\Delta^8$ -THC (s-THD)	0.013	0.041	ND	ND
$\Delta^9$ -THC (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
$\Delta^8$ -tetrahydrocannabivarin ( $\Delta^8$ -THCV)	0.021	0.064	ND	ND
Tetrahydrocannabinol ( $\Delta^9$ -THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	0.22	2.18
exo-THC (exo-THC)	0.016	0.8	ND	ND
Tetrahydrocannabinol ( $\Delta^9$ -THC)	0.003	0.16	UI	UI
$\Delta^8$ -tetrahydrocannabinol ( $\Delta^8$ -THC)	0.004	0.16	73.70	736.98
(6aR,9S)- $\Delta^{10}$ -Tetrahydrocannabinol ((6aR,9S)- $\Delta^{10}$ )	0.015	0.16	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)- $\Delta^{10}$ -Tetrahydrocannabinol ((6aR,9R)- $\Delta^{10}$ )	0.007	0.16	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND
$\Delta^9$ -Tetrahydrocannabihexol ( $\Delta^9$ -THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
$\Delta^9$ -Tetrahydrocannabiphoral ( $\Delta^9$ -THCP)	0.017	0.16	3.16	31.59
$\Delta^8$ -Tetrahydrocannabiphoral ( $\Delta^8$ -THCP)	0.041	0.16	ND	ND
$\Delta^8$ -THC-O-acetate ( $\Delta^8$ -THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
$\Delta^9$ -THC-O-acetate ( $\Delta^9$ -THCO)	0.066	0.16	1.23	12.32
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
3-octyl- $\Delta^8$ -Tetrahydrocannabinol ( $\Delta^8$ -THC-C8)	0.067	0.204	ND	ND
Total THC ( THCa * 0.877 + $\Delta^9$ THC )			ND	ND
Total THC + $\Delta^8$ THC + $\Delta^{10}$ THC ( THCa * 0.877 + $\Delta^9$ THC + $\Delta^8$ THC + $\Delta^{10}$ THC )			73.70	736.98
Total CBD ( CBDA * 0.877 + CBD )			1.40	14.00
Total CBG ( CBGA * 0.877 + CBG )			0.41	4.09
Total HHC ( 9r-HHC + 9s-HHC )			ND	ND
Total Cannabinoids			80.12	801.15

**HME - Heavy Metals Detection Analysis**

Analyzed Nov 04, 2022 | Instrument ICP/MSMS | Method SOP-005

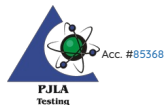
Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.0005	<LOQ	0.2	Cadmium (Cd)	3.0e-05	0.0005	<LOQ	0.2
Mercury (Hg)	1.0e-05	0.0001	<LOQ	0.1	Lead (Pb)	1.0e-05	0.00125	<LOQ	0.5

**MIBIG - Microbial Testing Analysis**

Analyzed Nov 04, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Scan the QR code to verify authenticity.

Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 07 Nov 2022 18:03:48 -0800

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MTO - Mycotoxin Testing Analysis

Analyzed Nov 03, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	-
Aflatoxin B2	2.5	5.0	ND	-	Aflatoxin G1	2.5	5.0	ND	-
Aflatoxin G2	2.5	5.0	ND	-	Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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PES - Pesticides Screening Analysis

Analyzed Nov 03, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazail	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclobotrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.05	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentazine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J.L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

RES - Residual Solvents Testing Analysis

Analyzed Nov 07, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000.0	Butane (But)	0.4	40.0	ND	5000.0
Methanol (Metha)	0.4	40.0	ND	3000.0	Ethylene Oxide (EthOx)	0.4	0.8	ND	1.0
Pentane (Pen)	0.4	40.0	ND	5000.0	Ethanol (Ethan)	0.4	40.0	ND	5000.0
Ethyl Ether (EthEt)	0.4	40.0	ND	5000.0	Acetone (Acet)	0.4	40.0	<LOQ	5000.0
Isopropanol (2-Pro)	0.4	40.0	<LOQ	5000.0	Acetonitrile (Acetonit)	0.4	40.0	ND	410.0
Methylene Chloride (MetCh)	0.4	0.8	ND	1.0	Hexane (Hex)	0.4	40.0	ND	290.0
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000.0	Chloroform (Clo)	0.4	0.8	ND	1.0
Benzene (Ben)	0.4	0.8	ND	1.0	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1.0
Heptane (Hep)	0.4	40.0	<LOQ	5000.0	Trichloroethylene (TriClEtH)	0.4	0.8	ND	1.0
Toluene (Toluene)	0.4	40.0	<LOQ	890.0	Xylenes (Xyl)	0.4	40.0	ND	2170.0

FVI - Filth & Foreign Material Inspection Analysis

Analyzed Nov 01, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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