

PharmLabs San Diego Certificate of Analysis

3421 Hancock St, Second Floor, San Diego, CA 92110 | License: C8-0000098-LIC  
 ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368



Sample **Live Resin - Pineapple Express**

Sample ID	SD230118-060 (60048)	Matrix	Concentrate (Inhalable Cannabis Good)
Tested for	Ghost		
Sampled	-	Received	Jan 17, 2023
Analyses executed	CANX, RES, MIBIG, MTO, PES, HME, FVI	Reported	Jan 23, 2023

**Laboratory note:** The estimated concentration of the unknown peak in the sample is 8.30% | 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 (+)-8-THC or d9-THC. At this time there are no reference standards available for (+)-8-THC. (+)-8-THC is a different compound from the main (-)-8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)-8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)-8-THC and d9-THC with the majority, if not all, of the concentration being (+)-8-THC. Total (+/-) D8 Concentration is estimated to be: 61.65%

**CANX - Cannabinoids Analysis**

Analyzed Jan 23, 2023 | Instrument HPLC  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND
Cannabidiol (CBD)	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-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-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	0.34	3.39
Cannabidiol (CBD)	0.001	0.16	1.65	16.47
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabinol (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabinol (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	0.25	2.49
Cannabidiphoral (CBDP)	0.015	0.047	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	61.65	616.50
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	1.15	11.49
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	16.52	165.21
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND
Δ9-Tetrahydrocannabinol (Δ9-THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ9-Tetrahydrocannabinol (Δ9-THCP)	0.017	0.16	3.89	38.86
Δ8-Tetrahydrocannabinol (Δ8-THCP)	0.041	0.16	ND	ND
Cannabicitran (CBT)	0.005	0.16	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND
Total THC (THCa + 0.877 + Δ9THC)			ND	ND
Total THC + Δ8THC + Δ10THC (THCa + 0.877 + Δ9THC + Δ8THC + Δ10THC)			79.32	793.20
Total CBD (CBDa + 0.877 + CBD)			1.65	16.47
Total CBG (CBGa + 0.877 + CBG)			0.34	3.39
Total HHC (9r-HHC + 9s-HHC)			ND	ND
Total Cannabinoids			85.44	854.41

**HME - Heavy Metals Detection Analysis**

Analyzed Jan 20, 2023 | 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	0.02	0.2	Cadmium (Cd)	3.0e-05	0.0005	0.00	0.2
Mercury (Hg)	1.0e-05	0.0001	0.01	0.1	Lead (Pb)	1.0e-05	0.00125	0.05	0.5

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, 23 Jan 2023 11:33:33 -0800

PharmLabs San Diego | 3421 Hancock St, Second Floor, San Diego, CA 92110 | 619.356.0898 | ISO/IEC 17025:2017 Certification L17-427-1

\*This report shall not be reproduced except in full, without the written approval of the lab. This report is for informational purposes only and should not be used to diagnose, treat or prevent any disease. Results are only for samples and batches indicated. Results are reported on an "as received" basis, unless indicated otherwise. When a Pass/Fail status is reported, that status is intended to be in accordance with federal, state and local laws which are required for the customer to be in compliance. The measurement of uncertainty is not included in the Pass/Fail evaluation unless explicitly required by federal, state or local laws and has been reported on the certificate of analysis. Measurement of uncertainty is available upon request.



MIBIG - Microbial Testing Analysis

Analyzed Jan 20, 2023 | 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

MTO - Mycotoxin Testing Analysis

Analyzed Jan 20, 2023 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOG ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOG 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



Scan the QR code to verify authenticity.

Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 23 Jan 2023 11:33:33 -0800

PES - Pesticides Screening Analysis

Analyzed Jan 20, 2023 | 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	Paclbutrazol	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	Acetamidrid	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 Jan 19, 2023 | 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 (1,2-Dich)	0.4	0.8	ND	1.0
Heptane (Hep)	0.4	40.0	ND	5000.0	Trichloroethylene (TriClEtH)	0.4	0.8	ND	1.0
Toluene (Toluene)	0.4	40.0	ND	890.0	Xylenes (Xyl)	0.4	40.0	ND	2170.0

FVI - Filth & Foreign Material Inspection Analysis

Analyzed Jan 18, 2023 | 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



Scan the QR code to verify authenticity.

Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 23 Jan 2023 11:33:33 -0800

PharmLabs San Diego | 3421 Hancock St, Second Floor, San Diego, CA 92110 | 619.356.0898 | ISO/IEC 17025:2017 Certification L17-427-1

\*This report shall not be reproduced except in full, without the written approval of the lab. This report is for informational purposes only and should not be used to diagnose, treat or prevent any disease. Results are only for samples and batches indicated. Results are reported on an "as received" basis, unless indicated otherwise. When a Pass/Fail status is reported, that status is intended to be in accordance with federal, state and local laws which are required for the customer to be in compliance. The measurement of uncertainty is not included in the Pass/Fail evaluation unless explicitly required by federal, state or local laws and has been reported on the certificate of analysis. Measurement of uncertainty is available upon request.