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 **Apple Kush**

Sample ID **SD230315-020 (69798)**		Matrix **Concentrate (Inhalable Cannabis Good)**	
Tested for **Crooked Creations**			
Sampled **-**	Received **Mar 14, 2023**		Reported **Mar 20, 2023**
Analyses executed **CANX, RES, MIBIG, MTO, PES, HME, FVI**			

Laboratory note: The estimated concentration of the unknown peak in the sample is 1.79% | 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 (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be: 67.86%

CANX - Cannabinoids Analysis

Analyzed **Mar 20, 2023** | Instrument **HLPC**
Measurement Uncertainty at 95% confidence**7.806%**

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-Δ8-Tetrahydrocannabivarin (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (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	ND	ND
Cannabidiol (CBD)	0.001	0.16	ND	ND
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	2.73	27.34
Cannabidiphorol (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	67.86	678.60
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	1.01	10.14
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	3.99	39.90
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	0.66	6.63
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	ND	ND
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	0.67	6.69
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
Δ9-THC methyl ether (Δ9-MeO-THC)			ND	ND
Total THC (THCa * 0.877 + Δ9THC)			ND	ND
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ8THC + Δ10THC)			72.86	728.64
Total CBD (CBDa * 0.877 + CBD)			ND	ND
Total CBG (CBGa * 0.877 + CBG)			ND	ND
Total HHC (9r-HHC + 9s-HHC)			ND	ND
Total Cannabinoids			76.93	769.29

HME - Heavy Metals Detection Analysis

Analyzed **Mar 16, 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	0.00	0.2	Cadmium (Cd)	3.0e-05	0.0005	0.00	0.2
Mercury (Hg)	1.0e-05	0.0001	ND	0.1	Lead (Pb)	1.0e-05	0.00125	0.02	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

PJLA Testing Acc. #85368

RPD611043

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Authorized Signature

Brandon Starr, Lab Manager
Mon, 20 Mar 2023 12:45:20 -0700

MIBIG - Microbial Testing Analysis

Analyzed **Mar 17, 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 **Mar 20, 2023** | 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

PJLA Testing Acc. #85368

RP0611043

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Brandon Starr

Brandon Starr, Lab Manager
Mon, 20 Mar 2023 12:45:20 -0700

PES - Pesticides Screening Analysis

Analyzed **Mar 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
Imazalil	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	Paclobutrazol	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	0.03	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
Clofentezine	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	Flonicamid	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 **Mar 20, 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	ND	5000.0	Acetonitrile (Acetonit)	0.4	40.0	ND	410.0
Methylene Chloride (MetCh)	0.4	0.8	<LOQ	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	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 **Mar 14, 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

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ISO 17025

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