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 D8/D9 HHC/THCP 100mg

Sample ID SD230509-032 (75228)		Matrix Edible (Other Cannabis Good)		
Tested for TPFN LLC				
Sampled -	Received May 08, 2023	Reported May 15, 2023		
Analyses executed FP-NI20	Unit Mass (g) 47.156	Num. of Servings 10	Serving Size (g) 4.72	

Laboratory note: The estimated concentration of the unknown peak in the sample is 0.67% | 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 49-THC. At this time there are no reference standards available for (+)d8-THC is a different compound from the main (-)d8-THC cannobinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and 49-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be 1:64%

CANX - Cannabinoids Analysis

Analyzed May 15, 2023 | Instrument HPLC-VWD | Method

The expanded Uncertainty of the Cannabinoid analysis is approximately 7.806% at the 95% Confidence Level

The expanded Uncertainty of the Cannabinoid analysis is approximately #.806% at the 95% Confidence Level						
Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Serving	Result mg/Unit
11-Hydroxy-Δ8-Tetrahydrocannabivarin (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND	ND	ND
11-Hydroxy-∆8-Tetrahydrocannabinol (11-Hyd-∆8-THC)	0.007	0.021	ND	ND	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	ND	ND	ND	ND
Cannabigerol Acid (CBGA)	0.001	0.16	ND	ND	ND	ND
Cannabigerol (CBG)	0.001	0.16	0.03	0.29	1.35	13.53
Cannabidiol (CBD)	0.001	0.16	0.24	2.40	11.34	113.32
1(S)-THD (s-THD)	0.013	0.041	ND	ND	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	0.03	0.34	1.58	15.80
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	1.64	16.40	77.41	773.36
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	0.09	0.90	4.23	42.30
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	0.20	1.96	9.26	92.47
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND	ND	ND
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	ND	ND	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	0.01	0.06	0.29	2.88
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	0.02	0.22	1.02	10.23
Cannabicitran (CBT)	0.005	0.16	ND	ND	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	0.01	0.06	0.28	2.83
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	0.01	0.07	0.33	3.30
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND	ND	ND
Δ9-THC methyl ether (Δ9-MeO-THC)			ND	ND	ND	ND
Total THC (THCa * 0.877 + Δ9THC)			ND	ND	ND	ND
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ10THC)			1.64	16.40	77.41	773.36
Total CBD (CBDa * 0.877 + CBD)			0.24	2.40	11.34	113.32
Total CBG (CBGa * 0.877 + CBG)			0.03	0.29	1.35	13.53
Total HHC (9r-HHC + 9s-HHC)			0.29	2.86	13.49	134.77
Total Cannabinoids			2.27	22.69	107.10	1070.02

HME - Heavy Metals Detection Analysis

Analyzed May 13, 2023 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.0005	0.01	1.5
Cadmium (Cd)	3.0e-05	0.0005	ND	0.5
Mercury (Hg)	1.0e-05	0.0001	ND	3
Lead (Pb)	1.0e-05	0.00125	0.01	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
JULOL Above upper limit of linearity
CFU/g Colonyl Forming Units per 1 gram
TNTC Too Numerous to Count









Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager Mon, 15 May 2023 12:55:09 -0700



MIBNIG - Microbial Testing Analysis

Analyzed May 10, 2023 | Instrument Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producina Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram

MTO - Mycotoxin Testing Analysis

Analyzed May 11, 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 Colonyl Forming Units per 1 gram
TNTC Too Numerous to Count







Authorized Signature

Brandon Starr Brandon Starr, Lab Manager Mon, 15 May 2023 12:55:09 -0700



PES - Pesticides Screening Analysis

Analyzed May 11, 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	0.3
Acephate	0.02	0.05	ND	5	Acetamiprid	0.01	0.05	ND	5
Azoxystrobin	0.01	0.02	ND	40	Bifenazate	0.01	0.05	ND	5
Bifenthrin	0.02	0.35	ND	0.5	Boscalid	0.01	0.03	ND	10
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	40
Clofentezine	0.01	0.03	ND	0.5	Diazinon	0.01	0.02	ND	0.2
Dimethomorph	0.02	0.06	ND	20	Etoxazole	0.01	0.05	ND	1.5
Fenpyroximate	0.02	0.1	ND	2	Flonicamid	0.01	0.02	ND	2
Fludioxonil	0.01	0.05	ND	30	Hexythiazox	0.01	0.03	ND	2
Imidacloprid	0.01	0.05	ND	3	Kresoxim-methyl	0.01	0.03	ND	1
Malathion	0.01	0.05	ND	5	Metalaxyl	0.01	0.02	ND	15
Methomyl	0.02	0.05	ND	0.1	Myclobutanil	0.02	0.07	ND	9
Naled	0.01	0.02	ND	0.5	Oxamyl	0.01	0.02	ND	0.2
Permethrin	0.01	0.02	ND	20	Phosmet	0.01	0.02	ND	0.2
Piperonyl Butoxide	0.02	0.06	ND	8	Propiconazole	0.03	0.08	ND	20
Prallethrin	0.02	0.05	ND	0.4	Pyrethrin	0.05	0.41	ND	1
Pyridaben	0.02	0.07	ND	3	Spinosad A	0.01	0.05	ND	3
Spinosad D	0.01	0.05	ND	3	Spiromesifen	0.02	0.06	ND	12
Spirotetramat	0.01	0.02	ND	13	Tebuconazole	0.01	0.02	ND	2
Thiamethoxam	0.01	0.02	ND	4.5	Trifloxystrobin	0.01	0.02	ND	30
Acequinocyl	0.02	0.09	ND	4	Captan	0.01	0.02	ND	5
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	1
Fenhexamid	0.02	0.07	ND	10	Spinetoram J,L	0.02	0.07	ND	3
Pentachloronitrobenzene	0.01	0.1	ND	0.2					

RES - Residual Solvents Testing Analysis

Analyzed May 11, 2023 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte		OD g/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		Butane (But)	0.4	40.0	ND	
Methanol (Metha)	0).4	40.0	117.4		Ethylene Oxide (EthOx)	0.4	0.8	ND	
Pentane (Pen)	0).4	40.0	ND		Ethanol (Ethan)	0.4	40.0	ND	
Ethyl Ether (EthEt)	0).4	40.0	ND		Acetone (Acet)	0.4	40.0	ND	
Isopropanol (2-Pro)	0).4	40.0	ND		Acetonitrile (Acetonit)	0.4	40.0	ND	
Methylene Chloride (MetCh)	0).4	0.8	ND		Hexane (Hex)	0.4	40.0	ND	
Ethyl Acetate (EthAc)	0).4	40.0	<loq< td=""><td></td><td>Chloroform (Clo)</td><td>0.4</td><td>0.8</td><td>ND</td><td></td></loq<>		Chloroform (Clo)	0.4	0.8	ND	
Benzene (Ben)	0).4	0.8	ND		1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	
Heptane (Hep)	0).4	40.0	ND		Trichloroethylene (TriClEth)	0.4	0.8	ND	
Toluene (Toluene)	0).4	40.0	ND		Xulenes (Xul)	0.4	40.0	ND	

FVI - Filth & Foreign Material Inspection Analysis

Analyzed May 08, 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 3q	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

MWA - Moisture Content & Water Activity Analysis

Analyzed May 11, 2023 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyzed ray 11, 2020 metrometra minror bempont and capacitatics rection of the								
Analyte	Result	Limit	Analyte	Result	Limit			
Moisture (Moi)	11 1 % Mw	13 % Mw	Water Activity (WA)	0.70 a	0.85 a			

UI Not Identified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
<.(\time Quantification
<.(\time Quantification)
</.(\time Quantification)
<









Authorized Signature

Brandon Starr, Lab Manager Mon, 15 May 2023 12:55:09 -0700



